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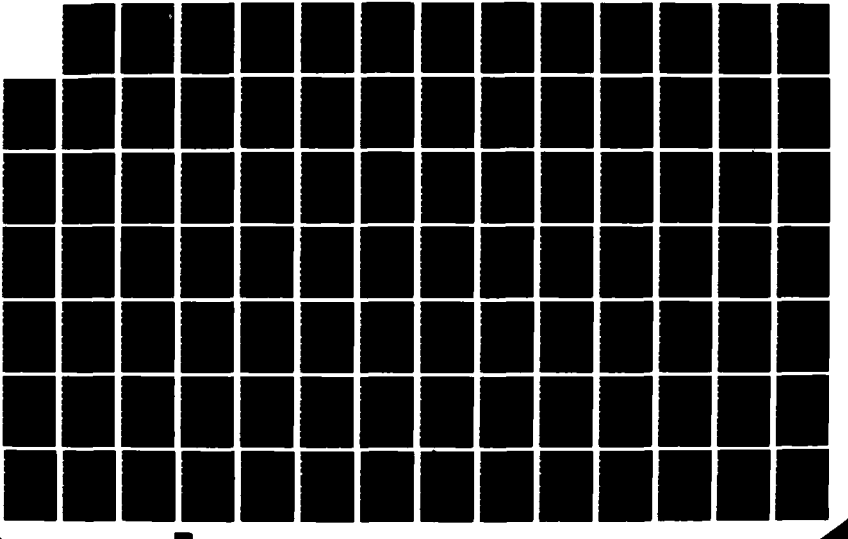

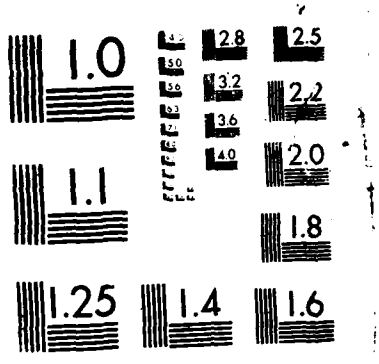

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THE ARMY IN AMPHIBIOUS WARFARE: A CONTEMPORARY APPRAISAL

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ARTS AND SCIENCE

by

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE ARMY IN AMPHIBIOUS WARFARE: A CONTEMPORARY ANALYSIS, by Lieutenant Commander Douglas A. Goepfert, USN, 150 pages.

This study is an examination of the Army's capability to conduct amphibious assault operations. The Army's post World War II experience is reviewed with respect to doctrine, changes in force structure and equipment, and training effort. A doctrinal Army landing force is contrasted with the Marine Air-Ground Task Force and existing Army units to determine the feasibility of actually assembling an Army force. A discussion of the continued viability and utility of amphibious warfare is also included.

The analysis reveals that (1) Army amphibious warfare doctrine is inadequate, (2) Army force structure no longer supports the doctrine, and (3) there are deficiencies in equipment necessary to conduct an amphibious assault.

The study concludes that although the Army has a collateral amphibious assault mission, the Army is neither prepared for, nor interested in, conducting such operations.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

Background

The Army conducted the majority of the amphibious landings made during World War II, some 58 to the Marine Corps' 14 (Ogden, note 14, pp. 1-2). Moreover, the Army contributed as much as the Marines did to the concepts and procedures of amphibious warfare that emerged from the war. Prior to the war, the Navy had provided boats and amphibious training for Army units, but soon after the United States' entry into the conflict, it became apparent that the Navy did not have enough resources to both fight the naval campaign and continue to fully support the Army in amphibious operations. The Army then organized and trained six Engineer Special Brigades to provide boat transportation and beach engineering support for Army amphibious operations (Garland, 1982, p. 25). The difficulties encountered spurred the development of a wide range of new equipment and techniques, and a vast reservoir of experienced personnel.

Unfortunately, the Army's interest in amphibious operations started to wane almost immediately after the

war. When the Marine Corps assumed responsibility for the lead in developing amphibious warfare doctrine in 1948, "the Army turned its back on the subject and walked away" (Garland, 1982, p. 26).

The landing at Inchon in 1950 was the last one made by Army troops. It must be noted that Gen MacArthur's proposal for the landing was met with "serious misgivings among his own staff" and received "extremely reluctant approval from the Joint Chiefs of Staff" (Pirnie, 1982, p. 86).

Thesis Overview

The aim of this thesis is to explore the Army's current capability to conduct amphibious operations. The Army is still tasked in JCS Pub. 2 with the requirement to be able to conduct amphibious operations, specifically:

> a. Organizing, equipping, and providing Army forces for joint amphibious operations.
>
> b. Providing for the training of such forces in accordance with doctrines established by the Joint Chiefs of Staff.
>
> c. Developing, in coordination with the other Services, doctrines, tactics, techniques, and equipment of interest to the Army for amphibious operations and not provided for [elsewhere in this publication].
>
> d. Participating with the other Services in joint amphibious training and exercises as mutually agreed by the Services concerned. (JCS, 1974, p. 20)

Both FM 100-1 (U.S. Army, 1986a, pp. 10, 19) and FM 100-5 (U.S. Army, 1986c, pp. 56-57) recognize the Army's responsibilities in all phases of amphibious warfare. The research question asks if the Army is capable of carrying out its amphibious mission.

The remainder of this chapter establishes the utility of the work and establishes a frame of reference for subsequent chapters. The Marine Air Ground Task Force (MAGTF) is used as a model for comparison with an Army landing force. It must be noted, however, that the Army has a different landing force doctrine, so the two organizations will not be identical.

Assumptions

It has been suggested by Binkin and Record (1976), and others, that amphibious operations are a thing of the past, that they are no longer viable, or even necessary. This thesis will proceed under the assumption that amphibious operations still have a place in the spectrum of military operations. Also, it is not likely that the mission statements in JCS Pub. 2 will change in the near future.

Definitions

An understanding of certain terms is essential for the discussion to follow. At a minimum, we must define what is meant by *amphibious warfare* and *amphibious operation.* The echelonment of forces will be pointed out as it has bearing on the scope of the discussion. We must also clearly define the Army's mission with respect to amphibious warfare.

Some think that amphibious warfare covers any combat operations which employ water as a means of moving land forces. This is not the case. An amphibious operation is defined in JCS Pub. 1 as:

> An attack launched from the sea by naval and landing forces, embarked in ships or craft involving a landing on a hostile shore. (JCS, 1984, p. 28)

An amphibious operation is comprised of five phases: planning, embarkation, rehearsal, movement to the objective area, and the assault. The landing force may be a single service or joint service organization, and is comprised of an assault echelon and a follow-on echelon. The assault echelon performs the initial assault in the objective area and is reinforced and supported by the follow-on echelon.

For extended land operations, additional follow-up elements are brought ashore in the secured beachhead. Sustainment of the forces ashore employing logistics over the shore (LOTS) techniques is a part of follow-up operations.

Closely related to the amphibious operation is the shore-to-shore operation which is:

> A land force operation involving a water crossing in assault craft, or in assault craft and aircraft, for the purpose of establishing a force on, or withdrawing it from, a far shore. It is usually a uni-Service operation. (U.S. Army, 1963, p. 316)

Shore-to-shore operations include such activities as crossing wide rivers, using a river as an axis of advance, and leapfrogging up a coast (e.g., the New Guinea campaign in World War II).

While shore-to-shore operations, LOTS and even administrative landings share attributes and techniques with amphibious operations, they are not amphibious operations. The things which distinguish an amphibious operation from its relatives are (1) that the landing force starts its operation from a shipboard base, and (2) that the landing will be opposed. By definition then, the Army's mission, which is to be able to participate in amphibious operations, requires an assault capability.

Delimitations

There are several restrictions on the scope of this thesis. First, amphibious warfare is addressed as a concept. No attempt will be made to analyze any specific scenario. Secondly, the focus of the thesis is on the assault and follow-on echelons in an opposed landing. Combat organization places requirements on the force that are not present in administrative movements; therefore, follow-up operations are only mentioned in passing. Since amphibious and shore-to-shore operations share so many attributes, any conclusions drawn from this thesis should apply to both types of operations.

Purpose

As noted above, the Army's interest in amphibious warfare fell precipitously at the end of the Second World War. Even the "Mid-Pacific Doctrine" developed during the war was gone and the Army had to use Marine Corps doctrine for the Inchon landing (Garland, 1982, p. 22). The Army is now being required to provide their service unique organization for a new joint *Doctrine for Landing Forces*. Draft LFM 02 of May 1986. The purpose of this thesis is to examine the Army's current amphibious assault capability and in-so-doing provide a point of departure for drafting the Army's input to the new manual.

Methodology

The strategy for this thesis was to lay a foundation through a review of the literature, then build on it by means of written and telephonic inquiries with people actively involved in amphibious and related operations.

A literature search for sources from 1945 to the present was conducted. Computer searches through the Defense Technical Information Center (DTIC) and NEXIS were employed, as well as manual methods. Key phrases used in the computer searches were "amphibious assault," "amphibious operations," "amphibious warfare," and "amphibious warfare doctrine." Subject headings of "military policy," "naval operations," "national policy," and "strategy" were additional keys used as part of the manual search.

An initial set of questions and respondents was drawn from my own professional experience as a naval officer with some five years of service in amphibious warfare units. The Army Command and General Staff College proponent officer for amphibious warfare, LTC Beck, provided the names and telephone numbers of the people responsible for amphibious warfare issues in the Headquarters, Department of the Army and Headquarters, Training and Doctrine Command. As gaps in the literature

were identified, MAJ Tanuta, who served as the Army Liaison Officer at Landing Force Training Command Pacific just prior to his attendance at the Command and Staff College, and LTC Beck supplied additional points of contact.

The written requests for information had two purposes. The first was to attempt to gauge Army training in amphibious warfare based on attendance at Navy and Marine Corps schools. Letters were sent to each of the Naval Amphibious Schools and the Marine Corps Landing Force Training Commands asking for the frequency of training, course of instruction, and average size of Army unit trained. The second objective was to gather information on equipment and interoperability problems which had been identified while assembling the thesis proposal. In this case letters were sent to LTC Nuzzi at the Doctrine, Force Design and Systems Integration Branch of the Office of the Deputy Chief of Staff for Military Operations and to LTC Howard at the Joint and Combined Operations Division of Headquarters, Training and Doctrine Command. Four of the six requests sent out were answered. The questions and the responses can be found in Appendices A through D.

Telephone calls were made to the following individuals regarding questions in their fields of expertise:

COL Clark - Operations and Contingency Plans Division (DAMO-ODO), Headquarters Department of the Army

COL Defrancisco - War Plans Division (DAMO-SSW), Headquarters Department of the Army

COL Grimsley - Aviation Division (DAMO-FDV), Headquarters Department of the Army

LTC Higgins - Doctrine, Force Design, and Systems Integration Branch (DAMO-FDQ), Headquarters Department of the Army

LTC Tier & Mr. Weisflog - Concepts and Studies Division, U.S. Army Transportation School (Mr. Weisflog is a former instructor at the Transportation School and is now part of the civilian staff. He is also a coauthor of the *Army Watercraft Requirements Master Plan.*)

Mr. Hambric - Deputy Director, Division of Combined Arms, U.S. Army Engineer School (Mr. Hambric is an author of Engineer doctrine.)

LTC McDonald & Mr. Murdock - Organization, Personnel, and Systems Division, U.S. Army Engineer School (Mr. Murdock is in charge of Engineer unit TO&Es.)

LTC Beck - U.S. Army Command and General Staff College (proponent officer for amphibious warfare)

CAPT Simkins - S3 Section, Headquarters, 7th Transportation Group (The 7th Group has the Army's active boat companies and terminal service companies)

Ltc Collier, USMC - Head of Logistics Branch, Landing Force Training Command Pacific

Transcripts of telephone interviews can be found in Appendices E through K.

Survey of Literature

The initial search through the literature concentrated on open sources in the period 1980-1986. The search revealed a constant stream of articles in the U.S. Naval Institute *Proceedings* and the *Marine Corps Gazette*, but only one each in the *Military Review* and the *U.S. Army Aviation Digest*. Both Garland and Brown, writing in Army periodicals, maintained that the Army is slighting amphibious warfare and/or joint Army-Navy operations. Garland, a retired Army colonel and former editor of *Infantry* magazine, was most critical of the Army's ability to conduct amphibious operations. Expanding the search back to 1970 yielded another dozen pieces, most of which were not helpful in the production of this thesis. A significant number of articles appear in Army literature from 1949 through 1956, then their numbers taper off. As stated, the sea services continuously publish articles on amphibious warfare. The U.S. Naval Institute *Proceedings* and the *Marine Corps Gazette* were both excellent sources of material covering all aspects of the subject.

A review of the unpublished material in the Combined Arms Research Library (CARL) or available through DTIC produced additional sources. MMAS theses by MAJ J. W. Penny (1982) and MAJ Kevin McGoey (1984) were useful in both organizing this thesis and in providing leads to other

material. U.S. Army Command and General Staff College student papers by MAJ Victor S. Underhill (1966) and MAJ Alfred E. Taylor (1971), and a Naval War College student paper by MAJ James M. Johnson also held useful information. The CARL archives also hold many old policy papers and research project reports of historical value. The report of the Marine Corps' "Hogaboom Board" of 1956-57, for example, is an invaluable source which describes the thinking that went into shaping today's Marine Corps.

Official publications were also consulted. Field manuals provided doctrine and interpretations of unit missions and capabilities. As it turned out, they were just as valuable for what they did not say as for what they did. The word "amphibious" appears very few times in Army field manuals. The manual for engineer combat operations, FM 5-100, discusses river crossing techniques, but contains nothing on amphibious operations. A separate manual dealing with amphibious engineer tasks was cancelled in 1977 (U.S. Army, 1986b, p. 177). *Army Water Transport Operations*, FM 55-50 (U.S. Army, 1985a), contains doctrine for LOTS, water terminal, and watercraft operations. It includes a lengthy discussion of amphibious operations, outlining the role of Army boats to be "floating dumps" and "on-call" craft, but not directly involved with landing assault troops. Tables of Organization and Equipment (TOE) were the source of the official unit missions and

capabilities. Other information came from Army regulations, technical manuals, and student texts issued by the Army Command and General Staff College.

Summary

This chapter has provided the reader with a sketch of the problem and has established a common point of reference: The thesis address the assault aspect of amphibious warfare. To underscore the importance of the thesis, the next chapter will discuss the continued viability of amphibious warfare and the need to maintain an amphibious capability in the Army. Chapter 3 will start the analysis by reviewing Marine Corps and Army landing force structures and pointing out planning considerations for the employment of Army forces. Chapter 4, addressing Army activity in amphibious warfare since the close of World War II, presents information on doctrine, training, and changes in force structure and equipment. Conclusions, recommendations, and suggestions for areas of further research are contained in Chapter 5.

CHAPTER 2

AMPHIBIOUS WARFARE

> I also predict that large-scale amphibious operations will never occur again. -- General Omar N. Bradley, 19 October 1949 (as cited in Kelly, 1986, p. 20)

This chapter will discuss the continuing viability of amphibious warfare as a military action. Secondly, it will look at amphibious operations as an instrument of national power. Lastly, it will propose reasons why the Army should renew its interest in amphibious warfare.

Questioning Amphibious Warfare

World War II was barely over when the first assertions were made that amphibious warfare was obsolete (Salzer, 1978, p. 24). Our only remaining potential enemies, the Soviet Union and the People's Republic of China, were land powers. Unlike the Japanese, they had no vital sea lines of communication to cut. While amphibious assaults against them might be considered, the impact of such actions would probably have little effect on the outcome of a war (Binkin & Record, 1976, pp. 30-31).

In the late fifties and into the sixties, the major area of concern in all the armed forces was what effect nuclear weapons would have on warfare. An amphibious task force in its objective area presented a large, vulnerable target.

The reexamination of national policies following our experience in Vietnam once again called amphibious operations into question. The discussion at that time centered on balancing the requirements of our overseas commitments with budgetary reductions, and reconciling a growing reluctance to commit our forces overseas with the inherently *offensive* nature of amphibious operations. The emergence of precision guided munitions (PGMs) and the Navy's decreasing lift capacity were the new problems from a strictly military point of view.

Along with the question of amphibious warfare's viability, was that of its utility. The focus of national security considerations in the post-Vietnam period was the defense of Europe (Kelly, 1986). The employment of amphibious techniques in the European scenario was viewed as highly improbable. This raised serious questions about the Marines Corps' mission and force structure. Perhaps the most notable proposals for changing the organization of the Marine Corps were set forth by Binkin and Record (1976) in *Where Does the Marine Corps Go From Here?*.

Armstrong (1981), a Marine officer, summarized the issues an article on the future of amphibious warfare .

a. The amphibious task force in its objective area is a lucrative nuclear target.

b. PGMs fired by the defenders can destroy the landing force before they can touch down on the beach.

c. Amphibious operations are too slow. The time required to assemble a force, embark it, and transit to the objective area is measured in weeks and months. Deployment by strategic airlift would be much faster.

d. The Navy cannot lift a large enough force.

e. Marine Corps forces are too light. They lack sufficient armor and mechanized assets to survive against "heavy" mechanized forces ashore.

Counter Arguments

The proponents of amphibious warfare answer that it is still a viable and necessary military option. With regard to nuclear weapons, research by the Defense Atomic Agency indicated that with proper preparations, such as dispersion, an amphibious task force could survive the effects of a tactical nuclear weapon (Penny, 1982, p. 19). The damage potential presented by nuclear weapons is still concern, but the likelihood of their use now, as compared to the fifties, has diminished. The ability for either

side to retaliate to the other's nuclear attack and the risk of escalation to full scale nuclear warfare reduces the probability of a nuclear response (Armstrong, 1981, p. 49). The proliferation of PGMs is therefore the greatest threat to an amphibious task force in its objective area and to the landing force during an assault.

The density and lethality of advanced weapons does render the classic massed, World War II style assault against a prepared defense a thing of the past. Recent authors, however, contend that success may still be gained through a combination of surprise and updated tactics which stress speed and maneuver. The element of speed comes from helicopters, land movement of tracked landing vehicles (LVTs), and new equipment such the tilt-rotor aircraft and air cushion landing craft (LCAC). Armstrong (1981) focuses on the increased speed of new equipment limiting their exposure time and landing "where the enemy isn't." One of the advantages of an amphibious assault is that the opposition must stretch their forces to adequately cover their entire coastline. As Sun Tzu said, "... when he prepares everywhere, he will be weak everywhere" (circa 350 B.C./1963, p. 98). Alexander (1982, p. 67), a Marine colonel, suggested different landing formations, closer coordination between the surface and heliborne assault elements, and using LVTs and LCACs to press the attack inland without pausing on the beach. Another Marine, Moore

(1983), and Naval officers Wood and Haggerty (1985) apply maneuver warfare to amphibious assault. The assault force should land in several places at once then reinforce success and withdraw from areas of stiff resistance to hit again elsewhere. The objective here, as in Army doctrine, is to break the enemy's cohesion and ability to fight rather than to just seize terrain. As Wood and Haggerty wrote:

> We can no longer support the forces necessary to overwhelm most enemies by sheer numbers, so we, like David, must be able to surprise Goliath with a sudden, stunning, and lethal blow. (1985, p. 37)

The British amphibious assault in the Falkland Islands illustrates these techniques. The Argentineans certainly knew there was an invasion force coming. Even so, the British, with a successful deception plan, put their troops ashore in a virtually undefended area (O'Ballance, 1982).

Surface deployment from the United States to a trouble spot is indeed much slower than airlift. In fact, it would take about a month to get a Marine Amphibious Brigade from the U.S. to the Persian Gulf (Grace, 1981, p. 30). While movement by air is faster than surface transportation, airlift is dependent on the availability of usable, secure airfields at the destination. Airlift also restricts the amount of heavy equipment which can

accompany the force. An additional factor is that the time involved for an amphibious response is not necessarily based on starting in the United States. There are Marine units embarked in Navy shipping on a continuous basis whose reaction time is solely a function of the number of steaming hours from their location to the objective area. The embarked units may be reinforced by marrying the equipment and supplies carried in maritime prepositioning ships with personnel flown into an advanced staging area or an airfield secured by the afloat unit.

The maritime prepositioning program was conceived to help alleviate the Navy's shortage of amphibious lift. The size of the present day amphibious fleet represents only a small fraction of our strength at the close of World War II. New ships are being built, but their addition will be largely offset by the retirement of older hulls.

The last argument against amphibious warfare, directed at the Marine Corps in particular, was the result of the government's preoccupation with the defense of Europe. Thwarting a Warsaw Pact thrust is a job for heavy mechanized forces. The allegation that Marine forces do not have enough armor is true, but the Marines' equipment is a function of their mission. Their mission focus is the

> seizure or defense of advance naval bases and...the conduct of such land operations as may be essential to the prosecution of a naval campaign. (*National Security Act*, 1947)

Marines have fought in protracted land campaigns, but it is not their primary mission.

The conclusion then is that amphibious operations can still be successful if they are properly planned and "violently executed" (Armstrong, 1981, p. 47). The next question is: Why does the United States need to retain an amphibious capability?

Retaining the Capability

> Between 1946 and 1982, in some 250 instances of employment of American military forces, naval forces constituted the principal element of our response in about 80% of the crises (Watkins, 1986, p. 8).

Deployment of an amphibious task force is a means by which the government can discretely bring power to bear in an area of interest. The force can be positioned without involving any other governments, does not require the use of any local facilities, and can maintain a low profile by staying out of sight over the horizon. Just the presence of an amphibious force may be enough to achieve the desired results (Kelly, 1986). The force can stay on station for a long time if necessary, or move again on short notice.

The fall of the Shah of Iran, the Tehran hostage crisis, and the Soviet invasion of Afghanistan which led to

the Carter Doctrine forced national security policy makers to reevaluate our global military strategy. Southwest Asia has a paucity of facilities with which to support deployment of American troops by air. This leaves naval power projection, both air and amphibious, as the only available means of establishing an American presence in the area (Kelly, 1986). An increased interest in Central America, where there is a similar support problem, and events in the Falklands, Lebanon, and Grenada have brought amphibious warfare back out of the shadows. The reasons for maintaining an amphibious warfare capability were perhaps best expressed by Lt. Gen. Sir Steuart Pringle (1984). He noted that amphibious forces are free to advance or withdraw, independent of ports and airfields, without "violating frontiers" and provide a measure of "strategic flexibility" (p. 9).

The articulation of a National Maritime Strategy over the last few years has also been a factor in a renewed national interest in amphibious warfare. The strategy, presented by Secretary Lehman, sought to quantify the naval service's contribution to the overall National Military Strategy on a global basis (Watkins, 1986). One of the major aims of the maritime strategy is to

> influence the land battle by limiting redeployment of [threat] forces, by ensuring reinforcement and resupply, and by direct application of carrier air and amphibious power. (Watkins, 1986, p. 14)

Amphibious operations may be necessary to seize advanced naval bases early in the conflict (Kelly, 1986), or to regain territory lost in that stage (Watkins, 1986). Amphibious raids to disrupt the enemy's command and control or logistic facilities are also a possibility (Kelly, 1986).

Application to the Army

Let us now turn to items of interest to the Army. The first is that

> amphibious warfare, embracing both shore-to-shore and amphibious operations, refers to a major means of *maneuver*, an essential ingredient of combat power for the Army commander to employ. (Underhill, note 16, p. 3)(emphasis added)

Rivers, canals, and other bodies of water should be thought of as avenues to be exploited as much as obstacles to cross.

The second item has to do with the probability that Army units may be called upon to do an amphibious operation. As previously noted, the Marine Corps is not equipped for protracted land operations against a heavily mechanized enemy. In the Middle East scenario used by Penny (1982), a brigade of mechanized infantry was deployed by sea and landed as the follow-up echelon to relieve

Marine units already in place to permit their use elsewhere. McGoey (1984) pointed out that in addition to the combat power consideration, an Army landing force may sometimes be preferred for command and control purposes. His European scenario deals with amphibious flanking attacks along the Baltic coast designed to link up with other Army forces already in contact with the enemy. In this case Army units form the assault echelon. Another possibility is a small scale, very short notice, crisis situation which puts the first available combat force onto Navy ships for a noncombatant evacuation or rescue (Brown, 1982). Such an operation could either be surface oriented, or airmobile. The Army should, therefore, at least examine the possibilities in detail in order to frame out rough plans and determine training requirements.

Summary

This chapter has addressed the viability of amphibious warfare, its continued applicability, and a need for continued Army involvement in amphibious warfare. The days of massive invasions such as Normandy and Okinawa are probably gone forever, yet amphibious operations on a reduced scale are still a practical, effective instrument of military power. The Marine Corps may be called on most

often to conduct amphibious operations, but there are times when an Army landing force may be necessary or even preferable.

CHAPTER 3

AN ARMY LANDING FORCE

A landing force, like any other land combat organization, contains combat, combat support, and combat service support elements. The fact that an amphibious operation is launched from ships at sea, however, does impose constraints and special requirements which impact on the landing force's organization and by extension, the naval task force supporting it. A landing force must be organized and equipped to rapidly build up combat power ashore (A-N-AF-MC, 1983, p. 1-3). Movement of the force ashore can be via boat, aircraft, or a combination of both. There must be provision for fire support at least until the landing force's artillery can be established ashore (p. 7-3). Fire support requirements impact both the landing force and the naval task force. Lastly, the logistics organization must be able to support the build up ashore, bridge the ship-to-shore gap, and establish itself ashore without missing a beat (p. 10-3). This chapter, then, will address the composition of an Army landing force. The structure of a Marine air ground task force is presented for comparison purposes.

Marine Air Ground Task Force

The Marine Corps' solution for building a landing force is the Marine Air Ground Task Force (MAGTF). The MAGTF can trace its roots back to a 1922 proposed mission statement from Major General John A. Lejeune, then Commandant of the Marine Corps (Clifford, 1973, pp. 29-30). The Marines learned much from the fleet exercises of 1922 - 1925 and an analysis of the Gallipoli campaign at the Marine Corps School surfaced important concepts (p. 45), but it was the Advanced Base Problem Series in the early thirties that "awakened an understanding of the importance of the establishment of organized fleet landing units" (p. 45). Beside the formation of the Fleet Marine Force, the Advanced Base Problem Series spurred the creation of the *Tentative Landing Operations Manual*, first published in 1934 (p. 46). The Marines had started experimenting with combined arms operations and the use of air power right after World War I. Both were incorporated into the very first edition of the *Tentative Landing Operations Manual* (pp. 58-59). The Marines first considered helicopter operations in 1946 as a means of reducing an amphibious task force's vulnerability to nuclear weapons (p. 72). The first helicopter employment doctrine was written in 1947 (p. 73) before a suitable aircraft even existed. Further experiment and development

continued through the 1950's. Perhaps the most noteworthy event of this time was the 1956-57 Hogaboom Board which established the organization of the Marine divisions and air wings as we know them today (Clifford, 1973, p.87). The MAGTF itself is the result of formalizing the command relationships between the various existing task organized elements by establishing a command element (pp. 109-110).

FORCE HEADQUARTERS

(task organized)

MARINE AIR WING

4 SQDN AV-8/A-4
4 SQDN FA-18/F-4
2 SQDN A-6
1 SQDN EA-6
1 SQDN RF-4B
1 SQDN KC-130
1 SQDN OV-10
2 SQDN CH-53D/E
3 SQDN CH-46
1 SQDN UH-1N
1 SQDN AH-1
1 HAWK BN (3 bty)
1 STINGER BTY (15 teams)
1 COMM SQDN
1 AIR TRAFFIC CONTROL SQDN
1 AIR CONTROL SQDN
1 SUPT SQDN
1 ENG SQDN
1 TRANS SQDN (ground trans)

REINFORCED DIVISION

9 INF BN (w/ 24 DRAGON each)
1 TANK BN (w/ TOW CO)
3 DS ARTY BN (155mm (T))
1 GS ARTY BN (155mm (T))
1 GS ARTY BN (155mm & 8"(SP))
1 LIGHT ARMORED VEHICLE BN (15 w/ TOW)
1 AAV BN (LVT7s)
1 CBT ENG BN
1 RECON BN

FORCE SERVICE SUPPORT GROUP

H & S BN
SUPPLY BN
MAINT BN
ENG SUPT BN
MTR TRANS BN
MEDICAL BN
DENTAL BN
LANDING SUPT BN

Figure 1. A Marine Air-Ground Task Force based on a Marine Division. Information drawn from IP 1-4 (EC MCDEC, 1986) and NAVMC 2710 (USMC, 1985).

The MAGTF is a generic structure comprised of a command element, a ground combat element, an air combat element, and a combat service support element. The intent is to have a balanced, functionally complete organization. The MAGTF may be based on a Marine infantry battalion. regiment (brigade equivalent), or division--with appropriate slices of aviation and logistic support--depending on the intensity and duration of the operations being considered. The actual composition of a MAGTF will vary as each is specifically tailored for its assignment. Marine Divisions and Air Wings are organized to support this "building block" approach. Figure 1 shows a notional MAF built on a reinforced infantry division. This will provide a reasonable basis for comparison with a division size Army landing force discussed below.

Army Landing Force

The Army has a landing force organization spelled out in FM 31-12 (U.S. Army, 1963). The typical force is centered on a field army or an independent corps of three to five divisions (p. 18). A reinforced division is the smallest force considered (p. 19) as it is the smallest "stand alone" unit. The doctrinal army landing force and the MAGTF are very similar. Both use battalion landing teams as the basic unit in the assault echelon. Both call

for the use of amphibious vehicles to get the first waves of troops ashore and helicopters for rapid build up of combat power ashore and to add depth to the battlefield. Combat service support organizations are also very similar. This is no surprise since they have to perform the same mission. There is even a similarity in the employment of armor and artillery. A notional Army division size landing force with "heavy" and "light" options is shown in Figure 2. Let us examine the various components of a landing force to highlight planning considerations.

Surface Assault Element

FM 31-12 (U.S. Army, 1963) indicates that the battalion landing teams making the initial surface assault will ride in amphibious vehicles (p. 66). The amphibious vehicles, LVTPs, provide both protection and mobility "until such time as tactical carriers and organic vehicles are available in the beachhead" (p. 66). Special LVTHs, amphibious vehicles mounting a 105mm howitzer, accompanying the assault waves will support the landing teams with close fire support until tanks and artillery are brought ashore (p. 66). This brings up a problem. The Army does not have any amphibious armored tracked vehicles, LVTP or LVTH. The armored personnel carrier, M113, and the Bradley fighting

MECHANIZED INFANTRY	LIGHT INFANTRY
5 MECH INF BN	9 INF BN
5 TANK BN	
3 ARTY BN (155mm (SP))	3 ARTY BN (105mm (T))
1 MLRS BTY	(155mm (T) BTY may be asgn)
1 TGT AQSN BTY	
1 CAV SQDN (ARMD & AIR)	1 CAV SQDN (FOOT & AIR)
1 ATK HEL BN (AH-1/64)	1 ATK HEL BN (AH-1)
1 GS AVN CO (UH-60)	2 ASSLT HEL CO (UH-60)
1 CMD AVN CO	
1 ENGR BN	1 ENGR BN
1 ADA BN(GUN/CHAPARRAL/STINGER)	1 ADA BN (GUN/STINGER)
1 SIG BN	1 SIG BN
1 MP CO	1 MP CO
1 MI BN	1 MI BN
1 AVN MAINT CO	1 AVN MAINT CO
1 MN SUPT BN	1 MAINT BN
3 FWD SUPT BN	1 SUP & TRANS BN

REQUIRED AUGMENTATION

1 LVT CO (IFVs for troops boated in LVTs carried in follow on shipping)	1 LVT BN
2 ARTY BN (155mm (T) take place of 2 SP BNs during assault)	1 TANK BN
1 MDM HEL BN (CH-47)	1 MD HEL BN (CH-47)
1 ASSLT HEL BN (UH-60)	1 ASSLT HEL BN (UH-60)

SHORE PARTY HQ
ENGR CBT BN
ENGR PIPELINE CO
MED BN
MBL SURG HOSP
MP BN
ORD BN
SUP BN
TERM SVC BN
TRK BN
AREA SIG CO

Figure 2. An Army Division size landing force showing "heavy" and "light" options. Information compiled from ST 101-1 (CGSC, 1986), FM 31-12 (U.S. Army, 1963), FM 101-10-2 (U.S. Army, 1977)

vehicle, M2, have limited swimming capability. The M113 swims at 3.6 mph , the M2 swims at 4.5 mph (CGSC, 1986, pp. A-1, A-15) and neither one is designed to negotiate surf. This means that the surface assault would have be done entirely by boat. The choice is whether to use mechanized or dismounted infantry.

Mechanized infantry would enjoy the protection of their vehicle while enroute to the beach. Dismounted troops would be more exposed to enemy fire. In either case, a boat presents a larger and softer target than a swimming LVT. Once ashore, a mechanized unit would have more fire power and mobility than a dismounted one, but McGoey (1984) pointed out that the tracked vehicles are "not essential during the amphibious assault, in fact, they may be a liability" (p. 68). McGoey's argument is that the threat from anti-armor weapons will be so high as to negate the usefulness of infantry fighting vehicles until dismounted troops can clear out the beach defenses.

A final point about mounted versus dismounted infantry in the surface assault is that more boats would be required to get a mechanized unit ashore. Table 1 shows the cargo options for each type of landing craft (e.g., an LCM-8 can carry 200 troops *or* two M2s). In the "J" series table of organization and equipment (TOE), the totals for the five infantry battalions of a mechanized infantry division are 4,220 personnel, 300 M2/M3s, and 60 Improved

Tow Vehicles (CGSC, 1986, p. 8-21, 8-23). With the boat capacity shown in Table 1, it would take 22 LCM-8s to get the personnel ashore. If mounted in their M2s, it would take 360 LCM-8s for the same five battalions. Naturally, a mix of boat types and mounted/dismounted troops would be used in an assault, but the example illustrates the magnitude of the problem.

Table 1

Landing Craft Lift Capability

Landing Craft	Troops	M113	M2	M60A3	M1
LCM-6	80	1	1	0	0
LCM-8	200	2	2	1	1
LCU-1466	400	9	4	3	2
LCU-1667	673	12	5	3	3
LACV-30	540(est)	2	1	0	0
LCAC	618(est)	2	1	1	1

Note: Data drawn from FM 31-12 (U.S. Army, 1963), FM 55-50 (U.S. Army, 1985), RB 101-999 (CGSC, 1973), and Dicker (1985, pp. 1146).

With regard to the assault echelon's tanks, FM 31-12 (U.S. Army, 1963, p. 76) calls the armor units to be brought ashore as quickly as possible. Due to their size and weight, tanks must go ashore in landing craft.

Air Assault Element

FM 31-12 points out that using helicopters in conjunction with the surface assault will speed up

development of combat power ashore and lend depth to the battlefield (p. 77). As an illustration, the current practice in the Marine Corps is to send about a third of the infantry ashore by LVT and the rest by helicopter (Alexander, 1982, p. 62). The Army has plenty of helicopters and is proficient in air mobile operations. The planning considerations for an amphibious operation arise from (1) the need to operate Army helicopters from ships; and (2) the sheer magnitude of the required lift.

McGoey (1984, pp. 47-61) provides a good overview of the difficulties encountered. The first, and foremost, problem is the suitability of Army helicopters for shipboard operations. None of the Army's helicopters are equipped with a rotor brake, or a powered rotor blade folding system (pp. 47-48).

With a rotor brake, the helicopter's blades can be stopped as soon as the engines are shut down. Without one, the flight deck crew must wait for the blades to slow to a stop. The result is that it takes longer to reposition helicopters on the flight deck which in turn slows down the entire evolution. The additional time must be planned for.

In order to carry enough helicopters aboard ship, they must be parked close together with their rotor blades folded. This allows the storage of aircraft out of the weather in the hangar bay away from the salt spray and more importantly, safe from wind and wave damage. As an

example, TM 55-1520-209-10 (U.S. Army, 1979, p. 2-81) states that the rotor blades on the CH-47 should be folded if wind speeds exceed 40 knots. A ship transiting at 15 knots into the trade winds in fair weather averages 30 knots of wind across the flight deck. It does not take much deterioration in the weather to surpass the 40 knot envelope. Even an isolated rain squall can generate relative winds in the 40-60 knot range. Blade folding also permits positioning a large number of aircraft on the flight deck before flight operations start. After the first flight lifts off, the next group of aircraft needs only to be towed a short distance into position. A powered folding system is a speed factor. It takes 90 minutes to fold the blades of an H-47 manually (TM 55-1520-400-14C as cited in McGoey, 1984, p. 59). From my observations of the process, it takes about a minute to do the same thing on an CH-46. Once again the planners will have to allow extra time to spread and fold blades.

There is also a difference in the lift capacity of the Army's aircraft and those of the Marines. Reference manuals (e.g., ST 101-1, TM 55-1520-237-10, TM 55-1520-209-10, and FMFM 5-1) indicate a lift capability of 11 troops for the UH-60, 33 for the CH-47, and 21 for the CH-46. The difference in the per lift capability of the two primary troop transport helicopters, the UH-60 and CH-46, and the

extra deck time required by the Army helicopters means that an Army landing force would require significantly more time than a Marine force to get an equivalent number of troops ashore. Employing CH-47s for troop lift would mitigate the time difference, but would also divert them from their primary equipment/logistic lift role. This leads us to the matter of just how much lift is required.

Staying as close as we can to the one third surface assault, two thirds air assault ratio from the Marine Corps example, a mechanized division would send two infantry battalions ashore by surface means, three battalions (dismounted) by air. For a light infantry division it works out to three battalions by surface assault, six by air. This gives us totals of 2,532 and 1,677 troops, respectively, to move by air. In terms of gross lift requirements, discounting organization for combat which would generate requirements for additional aircraft, the mechanized division would need 231 UH-60, or 77 CH-47 sorties to fly in the infantry. The light division's requirements are 153 UH-60, or 51 CH-47 sorties. Either organization would need augmentation to get enough lift assets. In the end, shipboard space constraints will dictate the mix (number of each type) of aircraft which can be taken along.

Artillery

Just as the composition of the assault element has an impact on how quickly it can be put ashore, so does the mix of artillery. The "J" series TOE mechanized or armor division have self propelled artillery which can only be brought ashore by boat. Most of the Marine Corps' artillery remains towed pieces which may be lifted ashore by helicopter. Indeed, the CH-53 is often used for that very purpose. Any model CH-47 can transport either a 105mm or 155mm towed howitzer, but a C+ or D model would be recommended because of the flight endurance requirements of an amphibious operation. Airborne, and air assault divisions are the only Army organizations which still have towed artillery (CGSC, 1986, pp. 9-1 - 9-16).

Even more important than the composition of the accompanying artillery is the capability to control and coordinate all the supporting arms--close air support, naval gunfire support, and landing force artillery. Army formations are not configured to perform this function. Communications difficulties would also arise due to differences in radio equipment between the services. The MAGTF organization incorporates elements to perform these functions both while afloat and after control has shifted ashore. An Army landing force would require augmentation by air/naval gunfire liaison company (ANGLICO) personnel in

addition to the Air Force tactical air control party (TACP) which normally accompanies Army formations (CGSC, 1985, p. 4-19).

Combat Service Support

Combat service support operations in an amphibious assault have unique requirements which tend to make them more difficult than in regular land operations. As stated in the introduction to this chapter, the logistics organization must build its operation from a zero base. The task is further complicated by an initial lack of port facilities and access to the transportation network in the area of operations. The first priority of the logistics organization is to get critical combat supplies (e.g., ammunition and fuel, ashore to sustain the assault). As the assault force moves inland, leaving behind them a relatively secure beachhead, elements of the logistics organization move ashore and organize a beach support area to keep the flow of supplies moving, control evacuation of casualties, and handle enemy prisoners of war. The Marines' Force Service Support Group is configured to provide both normal combat service support and the additional tasks of an amphibious landing. FM 31-12 sets forth a similar structure for the Army. Combat service support for Army amphibious operations is centered on an

Engineer Amphibious Support Command (EASC) (U.S. Army, 1963, pp. 65-66).

The EASC provides command and control for the shore party, specialized engineer services for maintaining the beach, and Army LVT assets. The shore party consists of the EASC with attached medical, supply, transportation, and administration units (pp. 72-73). While most of the various components of a shore party still exist, the EASC does not. The last (and only) one, the 2d Engineer Amphibious Command, was inactivated in 1965 (OUSAR MCEC, note 13, p. 8; Taylor, note 15, p. 19), though the TOE remained. There was still a TOE in 1970, titled Engineer Amphibious Brigade (5-401G), but it is no longer listed (Taylor, note 15, p. 40; TRADOC, note 17). Planning for an Army amphibious operation would therefore need to address the formation of a shore party, including a command structure for it.

CHAPTER 4

CURRENT STATUS

This chapter will discuss the Army's activities in amphibious warfare from the end of World War II to the present. Areas of discussion will include doctrine, force structure, training, and equipment. The planning considerations raised in Chapter 3 will also be factored into the material presented in this chapter. The logical order of discussion for this chapter was not readily apparent in that each of the areas being addressed has an impact on the others. One would imagine that force structure and new equipment would flow from doctrine, but in reality the opposite has often been the case. I have chosen the doctrine first approach and will begin there.

Doctrine

The Army learned much during World War II, but with demobilization those lessons were lost as they had never been codified into field manuals (Randall, 1958, p. 30). The first Army published doctrine appeared in joint publication FM 31-11/NWP 22 of 1967 (Weisflog, note 18, p. 120; U.S. Army, 1986b, p. 36). The core of Army doctrine

for amphibious warfare now resides in FM 31-11/NWP 22(B)/LFM 01, *Doctrine for Amphibious Operations* (A-N-AF-MC, 1983) and FM 31-12, *Army Forces in Amphibious Operations (The Army Landing Force)* (U.S. Army, 1963). FM 31-11, still a joint publication, has just been updated with the release of Change 4 in November 1986 (Beck, note 1). FM 31-12 is an Army document, last changed in 1963. A new joint landing force manual, LFM 02/FM 100-43, is in its second draft and will replace FM 31-12 (Beck, note 1). FM 31-12 lists a number of related field manuals which also apply to amphibious operations. Five of them are specifically about different aspects of amphibious operations. The others are more general in nature. Four of those five specialized manuals no longer exist. *The Battle Group Landing Team (Amphibious)*, FM 31-13, was rescinded in 1976 without replacement (U.S. Army, 1986b, p. 203). The same thing happened in 1977 to FM 5-144, *Engineer Amphibious Units* (p. 177). FM 55-53, *Transportation Amphibious Truck Company*, and FM 110-115, *Amphibious Reconnaissance*, are no longer listed as effective publications (p. 43, p. 54), but there is no record of when they were cancelled or if they were superseded (p. 210, p. 313). Based on a review of current field manuals, I suspect that the contents of FM 110-115 have been incorporated into FM 31-25, *Special Forces Waterborne Operations*. The fifth manual, FM 60-30 which

dealt with embarkation, was superseded by FM 20-12, a joint service publication, in 1975 (U.S. Army, 1986b, p. 212). A study conducted by the Department of the Army staff (DA, note 6, p. 7) noted doctrinal deficiencies and inconsistencies between the doctrine and existing force structure and capabilities. The consensus among the well placed sources I contacted is that Army doctrine in general is outdated (Hambric, note 8, p.95; Higgins, note 9, p. 83; Weisflog, note 18, p.120). Only field manuals regarding water transportation and terminal operations have continued to be updated and address supporting amphibious operations.

Force Structure

The organization of Army divisions has changed several times since World War II. The concern for tactical nuclear weapons in the mid-1950s brought about the "Pentomic division" (Binkley, 1977, p. 150-151) which yielded to the "ROAD Division" in 1965. The ROAD Division became "Division 75". Now there is the "Army of excellence." Each of these structures has an infantry or mechanized infantry division that could be task organized for an amphibious landing. Significant discrepancies arise, however, in the combat support and combat service support arenas. The problems lie in the unique organizations which supported amphibious warfare.

During the Second World War, there were six "Engineer Special Brigades" which operated and repaired landing craft and LVTs, provided beach engineering services, cargo handling, and were the nucleus of the shore party. Three of these brigades, the 3rd, 5th and 6th, were inactivated in October 1945, followed by the 1st Brigade in February 1946 (Amory, 1947, pp. 258-259; Stanton, 1984, pp. 513-514). Only the 2nd Engineer Special Brigade, with only one of its original three regiments, was still active when war again broke out in Korea (Randall, 1958, p. 30; Stanton, 1984, p. 513 & 516).

The post Korean War version of the Engineer Special Brigade was called an Amphibious Support Brigade and differed from its predecessor in that the boat units were no longer engineer units, but now part of the Transportation Corps (Taylor, note 15, p. 14-16). In 1955, the sole active Engineer Amphibious Command was inactivated. It was reactivated in 1958 as the Engineer Amphibious Support Command and remained an active unit until 1965 (pp. 18-19). The TOE was still listed in 1971, but now exists only as an historical file at the Engineer School (Taylor, note 15, p. 40; Murdock, note 10).

During the 1950s and 60s, the Corps of Engineers and the Transportation Corps engaged in a debate over who should command the shore party (Taylor, note 15, p. 18). The Transportation Corps maintained (pp. 19-20) that the

bulk of the shore party's tasks were logistic in nature, from the initial assault through corps/army support up to base development. Having a logistics oriented command would insure a smooth transition through each phase of support area development. The 1962 Department of the Army study cited previously in the section on doctrine, also recommended abolishment of the Engineer Amphibious Support Command headquarters and the special engineer shore companies (DA, note 6, p. 7). The Engineers' argument (Taylor, note 15, pp. 42-43) was that the tactical engineering combat support required in the assault phase outweighed the potential benefits of continuity of command, and that since a logistics cell was part of the existing shore party headquarters, there should be little trouble in turning over shore party operations to a follow-on support command. The Engineers won that battle (p. 34) and the command of the shore party remained with the engineer branch. At present, however, the Engineers have no doctrine or organization for shore party operations and furthermore no longer view the shore party as an engineer responsibility (Hambric, note 8, pp. 96, 102, 106, 110). Their opinion is that the shore party elements of the assault echelon will receive direction from attached Navy and Marine Corps personnel (Hambric, note 8, p. 104). The tasks for the follow-on echelon are very close to normal engineer and logistic support operations which could be

handled under existing doctrine (Hambric, note 8, p. 104). In contrast to the Engineers, the Transportation Corps has continued its work in logistics over the shore. The result is that the Transportation Corps is now the Army's sole source of expertise in shore party operations.

Along with the Engineer Amphibious Support Command, existing doctrine carries over another the World War II structure: Engineer Amphibian Battalions (U.S. Army, 1963, p. 66). The fate of these units closely parallels that of their parent commands. One reduced LVT company was still active in 1964 (Alden, 1964, p. 40). The TOE was still listed in 1971, but is no longer in the force structure (Taylor, note 15, p. 57; TRADOC, note 17). The LVTs themselves are addressed later in this chapter along with other equipment matters.

Training

Amphibious warfare training was virtually eliminated by the postwar demobilization (Randall, 1958, p. 30) and opinions on the future of amphibious warfare were divided. General Marshall, whose quote opened Chapter 3, felt that the atomic bomb had rendered amphibious assault obsolete. General Collins on the other hand held the opinion that amphibious assault still had a place in the warfighting spectrum (DA, note 6, p. 1). In a 1950

conference with the staff and faculty of the Command and General Staff College, representatives from the Office of the Army Chief of Staff and Army Field Forces (OACofS, note 12) put forth the "official" Department of the Army views. They said that the Army should retain the capability to do up to corps size landings "either in series with other small-scale amphibious operations, or in conjunction with airborne operations" (p. 1).

After a rekindling of interest brought about by the Korean War, amphibious warfare continued to be a small, but integral, part of Army training throughout the remainder of the 1950s. I have found references to at least two exercises in 1955, one in 1956, and another in 1958.

The decade of the 60s started out by continuing the policies of the 50s. The Department of the Army policy, as stated in a 1958 letter from the Adjutant General (note 11), was to maintain "key combat and support organizations used in amphibious operations" and to keep personnel and tonnage table current to facilitate deployment (p. 1). The letter also directed Continental Army Command, the predecessor of today's Forces Command, to schedule division level assault exercises and corps level command post exercises (CPX) every three years (p. 2-3).

In fiscal year 1961, 1,153 personnel attended training at the Naval Amphibious Schools at Coronado and Little Creek (DA, note 6, p. 5). In 1962 some 20,000 were

trained at Little Creek alone (*20,000 Army Troops*, 1962, p. 24). Army schools included significant amounts of instruction in amphibious operations. In FY 1961 for instance, the regular curriculum at the Army Command and General Staff College contained 30 hours of instruction (DA, note 6, p. 5). Instruction in the various branch officer advanced courses ranged from 10 hours at the Artillery School up to 32 hours at the Transportation School (DA, note 6, p. 5). There were CPXs in 1961 and 1962 (Dionne, 1965, p. 43-44). Four landing exercises were held during 1961 (DA, note 6, p. 6) and two more in 1964 (Dionne, 1965, p. 43; Heard, 1964, p. 36).

Dionne wrote in the December 1965 issue of the *Army Information Digest* that Continental Army Command was placing "heavy emphasis" on amphibious training and cited those exercises mentioned above (pp. 40, 43-44). Just short of a year later, the situation had changed. The October 1966 issue of *The National Guardsman* featured an article which criticized the Army for appearing "to be content to limit itself essentially to keeping in touch with Marine thinking and actions in this field" (Hoffman, 1966, p. 2). It is not surprising to note that the decline in amphibious warfare interest coincides the introduction of large numbers of troops into South Vietnam.

The current official position on readiness reaffirms amphibious warfare as a mission the Army must be ready to perform.

> The Army's concept of sustained land combat embraces...readiness for timely response to any mission--from land warfare by forward-deployed forces to selective contingency operations in a jungle or desert environment, from armored and mechanized infantry operations to special operations and amphibious or airborne assaults (U.S. Army, 1986a, p. 19).

Readiness implies training, but it is difficult to determine which units are supposed to train for amphibious operations and what training should be done. The Army regulation concerning amphibious warfare training is AR 350-26, *Amphibious Training Policies and Objectives* (U.S. Army, 1973). The policy of the Army as stated in the regulation is to "train Army forces to participate in joint amphibious operations in accordance with established doctrine" (p. 1). The object is to "maintain a pool of officers and key enlisted specialists trained in amphibious techniques and operations" and to familiarize units with amphibious warfare techniques and procedures (p. 1). AR 350-26 further charges the Commanding General U.S. Army Forces Command to maintain an "adequate training base" of active and reserve personnel, and amphibious units by sending designated personnel to Navy/Marine Corps schools (phase I training) and conducting home station (phase II) training (p. 2). The training requirements have a caveat, however, which says that the training is to be "consistent with operational and contingency missions," not to mention available equipment and facilities (p. 2). It appears then

that only those units with an amphibious mission need conduct amphibious training.

Which forces have an amphibious mission? The proposed capabilities statements for the ROAD infantry and mechanized divisions mention amphibious operations (CONARC, 1961, pp. G-1 & G-11), but these is no longer apply. The current "J" and "L" series heavy divisions, mechanized infantry and armor must be able to conduct "sustained combat operations under all conditions" (U.S. Army, 1986h, p. 6), but there is no specific mention of amphibious operations in these divisions' mission or capabilities. The same is true for infantry divisions (U.S. Army, 1986d, p. 6), light infantry divisions (U.S. Army, 1986g, p. 6), airborne (U.S. Army, 1986e, p. 453), and air assault divisions (U.S. Army, 1986f, pp. 6-7). The closest things to amphibious operations mentioned in TOE missions and capabilities are that the infantry division is capable of conducting riverine operations (U.S. Army, 1986d, p. 6) and that one of the ways rangers can assault their objectives is by sea (U.S. Army, 1986d, p. 4272). FC 71-101, *Light Infantry Division Operations* (CGSC, 1984, p. 1-6), indicates the capability to participate in amphibious operations other than a "forced entry." The only other units with an amphibious mission or capability are those Transportation Corps units involved with logistics over the shore.

Some training is being conducted by combat and combat support units in spite of their not having a specific amphibious mission. For instance, individuals from the 75th Rangers, 82d Airborne Division, 101st Air Assault Division, and 24th Infantry Division (Mechanized) regularly receive naval gunfire support spotter instruction at the Naval Amphibious School Little Creek, Virginia (NPS LCRK, note 5). On the west coast, the Naval Amphibious School Coronado holds the same training for personnel from the 7th Infantry Division (Light) and occasionally sends mobile training teams to Hawaii at the request of the 25th Infantry Division in (NPS CORO, note 4). The Landing Force Training Command Atlantic has provided company level amphibious orientation to elements of the 82d Airborne and 101st Air Assault Divisions (LFTC LANT, note 3). The Landing Force Training Command Pacific has trained up to battalion size elements of the 7th Infantry and its round out units (Collier, note 2). Unit troop training consists of shipboard familiarization, ship embarkation/ debarkation, and beach assault. The unit staffs receive instruction in planning amphibious operations, including a practical exercise. Unit training at these Navy and Marine Corps commands averages three units per year, individual training runs considerably higher (Collier, note 2; LFTC LANT, note 3; NPS CORO, note 4; NPS LCRK, note 5).

Extensive shipboard helicopter training, as described by Brown (1982), is a rarity. My experience in amphibious ships and units on the west coast for five of the years between 1980 and 1986 is that perhaps two or three ships a year provide shipboard landing services to Army aviators, usually in Monterey Bay off Fort Ord, California.

Equipment

While new equipment and systems have been developed for LOTS operations, the same cannot be said for assault equipment. World War II demonstrated the utility of an amphibious assault vehicle. These lightly armored tracked vehicles provided protection to the troops in the first assault waves while enroute to the beach and could take them much closer to their objectives than could landing craft. The Army no longer has any LVTs, nor any TOE units to operate them. Inquiry with the Engineer School and the Transportation School indicates that no such TOE units are being planned for (Hambric, note 8, p.108; Murdock, note 10; Weisflog, note 18, p. 118). Indeed, there is no interservice agreement between the Army and the Marine Corps to transfer any LVTs to the Army should they be needed (Beck, note 1; Hambric, note 8, p. 108; Weisflog, note 18, p. 118), nor are LVTs mentioned in the

Army Watercraft Requirements Master Plan (Troop Support Command, 1986).

Using Army helicopters in an amphibious assault poses an operational handicap as they lack two items of equipment necessary for efficient flight deck operations. Inquiry with the Aviation Division in the Department of the Army Headquarters (Grimsley, note 7) indicates that there is no plan to fit present models of Army helicopters with rotor brakes, but the special operations versions presently being procured will be so equipped. The Army's planned replacement medium helicopter, the LHX, will also be equipped with a rotor brake. There are, however, no current plans to equip Army helicopters with a power rotor blade folding system.

Summary

This chapter has attempted to trace Army amphibious activity since World War II. The level of amphibious activity in the Army has varied from modest training during the 1950s, to a rapid pace in 1961-62, finally dropping off to almost nil as Vietnam became the Army's focus. Army doctrine, force structure, and training as they apply to amphibious warfare were examined in turn, as well as activity concerning specialized amphibious assault equipment. The assault doctrine has remained

essentially unchanged from when it was written. The force structure has changed. In the process, many of the unique amphibious support units were deleted from the force. The same fiscal constraints and mission guidance that has effected the force structure also has impacted on training.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The preceding chapters have discussed the viability of amphibious warfare, the Army's doctrinal organization for conducting amphibious warfare, and the current state of the Army in carrying out its amphibious mission. This chapter will draw conclusions from the information presented and recommend areas for further study.

Thesis Recapitulation

In researching this thesis I have sought to gather information about the Army's amphibious assault capability. By searching the literature, both recent and historical, and by interviewing military experts in amphibious warfare to get the most current information available; I have assembled data dealing with amphibious doctrine, the Army's force structure, training, and specialized amphibious equipment.

The recent history of amphibious warfare in the Army has been one of decline. Demobilization following World War II drastically reduced the active Army and gutted

its amphibious capability. The advent of atomic weapons was seen as rendering amphibious assault obsolete. The Korean War, however, made it clear that the amphibious assault was still viable. A modest amphibious capability was retained after the armistice and units trained on a regular, if infrequent, basis up until the Vietnam conflict. The demands of the build up and operations in Vietnam forced the virtual abandonment of amphibious assault in the Army. It has been that way ever since.

The waning interest in amphibious assault has naturally had impact in several areas. The specialized units were inactivated to free up manpower and their special equipment was disposed of. The amount of amphibious assault training also declined. Lastly, doctrine was not reviewed or revised.

Conclusions

Existing Army doctrine is obsolete and incomplete. The adoption of the new joint landing force manual, LFM 02, will help, but the cancellations of the specialized publications cited in Chapter 4 still leave gaps in the doctrine which need to be filled. Tactical doctrine must be regenerated or adapted from other sources (i.e., the Marine Corps). The same is true with respect to shore party operations.

The current force structure does not support the admittedly obsolete doctrine. The specialized amphibious support units no longer exist, neither is there a plan available for a provisional structure to employ in their stead. The structure of and responsibility for the shore party must be settled and appropriate doctrine published. Both previous studies and current opinion point out that the existing logistic organizations could be augmented with engineers and other assets to do the job (Hambric, note 8, p. 111: Taylor, note 15, p. 19-20, 23-24; Weisflog, note 18, p. 125).

Combat units are doing relatively little training in amphibious warfare. As the combat forces have no clearly defined amphibious mission and as each unit has to carefully review its training priorities to stay within the available time and resources, amphibious training is one of the first things to drop from the training schedule. It also appears that the focus on "airland battle" and the defense of Europe, the so called "Fulda Gap mentality," also mitigate against serious consideration of amphibious operations.

As pointed out in Chapter 3, the Army would need additional equipment to conduct an amphibious assault on its own. This, however, does not preclude a joint landing force with both Army and Marine Corps elements.

The weight of the evidence makes it clear that aside from LOTS the Army is neither prepared for, nor interested in amphibious warfare. This is clearly illustrated by the following passage from the *Army Watercraft Requirements Master Plan*:

> In comparing Army/Navy missions, the Army's mission is defined as combat service support, which consists of post assault resupply, ship-to-shore discharge, coastal and inland harbor operations to include the discharge of vessels at fixed facilities. The Navy's missions are Naval combat, ocean transport, amphibious assault and supply, and protection of shipping during LOTS resupply missions. (Troop Support Command, 1986, p. v)

The position put forth in this quote was also echoed by some of the key people I interviewed (Hambric, note 8; Higgins, note 9; Weisflog, note 18). One can see from the discussion of definitions in Chapter 1 that this line of thought runs counter to the Army's mission as stated in JCS Pub. 2 and restated in FM 100-1 and FM 100-5.

Recommendations for Further Study

Although the Army has other missions and concerns which take precedence over amphibious warfare, amphibious operations remain an Army mission. In light of this state of affairs, the next question is: Should the Army be required to maintain an amphibious capability? If so, what

should the mission parameters be? Airborne and air mobile assaults, demonstrations and feints are operations the Army conducts, and can continue to conduct, in support of amphibious operations. Should the Army also be required to retain a true amphibious assault capability, or should the mission be limited to follow-on and logistic support?

Closing

Amphibious operations as an aspect of warfare have been with us from antiquity. They have been, and still are, a viable means of employing military power in pursuit of national goals. The United States, as a maritime nation, should retain a significant amphibious warfare capability. As the Army has the amphibious mission in conjunction with its classical land warfare role, the Army must stand ready to perform that mission.

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APPENDIX A

ARMY AMPHIBIOUS WARFARE QUESTIONNAIRE

NAVAL AMPHIBIOUS SCHOOL CORONADO

Q. How often do Army personnel/units train at your command?

A. Twice a year, units attend Fire Support Man (Mod). Individual USA personnel receive training at various times throughout the year.

Q. What is the average size Army unit trained? Biggest one?

A. 15 personnel.

Q. What courses are most often requested by the Army?

A. Fire Support Man by units. Amphibious Warfare Indoctrination and Amphibious Planning by individual personnel.

Q. How much embarkation/debarkation training?

A. None.

Q. How much coxswain training is requested?

A. Approximately 45 Army Reserve personnel were trained last year in coxswain and related boat training.

Q. How much TACLOG, SAC, and TACC training?

A. No SAC training was requested.

SUPPLEMENTAL TELEPHONE QUESTION

Q. Which Army units were trained last year?

A. Elements of the 75th Rangers, 9th Infantry Division and a field artillery battery from the 7th Infantry Division.

APPENDIX B

ARMY AMPHIBIOUS WARFARE QUESTIONNAIRE

NAVAL AMPHIBIOUS SCHOOL LITTLE CREEK

Q. How often do Army personnel/units train at your command?

A. The primary units requesting training are the 75th Rangers, 82d Airborne Division, 101st Air Assault Division and to a lesser extent, the 24th Mechanized Infantry Division. There are also a few field artillery units who occasionally send students as well as a few special operations type forces. The approximate number of Army students expected to attend our gunfire courses for fiscal year 1987 will total to about 160.

Q. What is the average size Army unit trained? Biggest one?

A. (not answered)

Q. What courses are most often requested by the Army?

A. The courses most often requested by Army personnel are: Troop Naval Gunfire Spotter, Troop Naval Gunfire Spotter (Special), and Naval Gunfire Air Spotter. The course lengths range from 1-2 weeks.

Q. How much embarkation/debarkation training?

A. (not answered)

Q. How much coxswain training is requested?

A. Records since the beginning of fiscal year 1986 to the present indicate no Basic Coxswain training has been requested by Army personnel.

Q. How much TACLOG, SAC, and TACC training?

A. No TACLOG training is conducted at this command. Army personnel have attended SACC training during the last four years, with the most recent having been Battlefield Coordination Element personnel in the January 1987 class. Formal TACC training is not conducted at NAVPHIBSCOL.

APPENDIX C

AMPHIBIOUS WARFARE QUESTIONNAIRE

LANDING FORCE TRAINING COMMAND

ATLANTIC

Q. How often do Army personnel/units train at your command?

A. FY 87 - 5 times, FY 86 - 5 times, FY 84 - 14 times, FY 83 - 11 times, FY 82 - 14 times.

Q. What is the average size Army unit trained? Largest trained?

A. 141 and 199 personnel.

Q. What courses are most often requested by the Army?

A. Only one course is requested - "4507" Army Infantry Company Amphibious Training.

Q. How much embarkation/debarkation training?

A. The company training course includes two hours of classroom instruction on embarkation/debarkation and about three hours of practice. The amount of practice time depends on the size of the unit. Larger units take more time than smaller units, however, 1.5 hours are allocated on the training schedule.

SUPPLEMENTAL TELEPHONE QUESTIONS

Q. Which units train at your command?

A. 101st Air Assault Division, 82d Airborne Division, and The Old Guard.

Q. How long is the Infantry Company Amphibious Training?

A. One week long.

APPENDIX D

AMPHIBIOUS WARFARE QUESTIONNAIRE

DOCTRINE, FORCE DESIGN AND SYSTEMS

INTEGRATION BRANCH, HEADQUARTERS

DEPARTMENT OF THE ARMY

Q. Previous research by CGSC students has pointed out that Army personnel have little experience with naval gunfire and close air support procedures. What training is being accomplished in this area? Do you see any movement toward development of standard, joint, fire and air support procedures?

A. Address this question to LTC Sutherland, Unit Training Branch (HQDA, DAMO-TRF).

Q. The Army has expended a significant amount of effort in developing logistics over the shore (LOTS) procedures and equipment, and routinely trains boat crews and cargo handling personnel for LOTS operations. On the other side of the coin, however, there appears to be no organization which parallels the Navy beach party or Marine shore party. Neither is there any training conducted in assault boat operations for boat crews. Do you have any information about it, or could you provide me with another point of contact who would?

A. Address this question to COL Grimsley, Aviation Division (HQDA, DAMO-FDV).

Q. Another problem area is the unsuitability of Army helicopters for shipboard operations. Do you know of any initiatives to change Army helicopter specifications for shipboard compatibility? If you don't, a point of contact would be appreciated.

A. Address this question to MAJ Dave Twitero, Joint & Combined Division, HQ TRADOC.

Q. A.N. Garner stated in a 1984 *Military Review* article that the Army's contribution to an amphibious landing would be an airborne division and its slice of combat service support units, "nothing more, nothing less." Do you see this as still being the case? Likewise, what are the Army's plans for participation in amphibious exercises?

A. Address this question to COL Roe, War Plans Division (HQDA, DAMO-SSW), or possibly COL Foley, Operations & Contingency Plans Division (HQDA, DAMO-ODO).

Q. Do you think the Army's attitude toward amphibious warfare will change? Will the DOD reorganization be a factor?

A. The DOD reorganization should not be a factor for generating greater interest in amphibious warfare. Overall

there is greater emphasis on joint and combined operations, however, Navy and Marine Corps participation in the Joint Force Development Process has been selective. Amphibious operations has not been one of the joint initiatives.

APPENDIX E

TELEPHONE INTERVIEW WITH COL GRIMSLEY, AVIATION DIVISION (DAMO-FDV), HEADQUARTERS DEPARTMENT OF THE ARMY

6 APRIL 1987

AUTHOR: The basic thing about operating Army helicopters from ships. None of the helicopters so far have rotor brakes on them which is no big deal for you guys when you're operating ashore because you've got plenty of room and you can take your time and let the rotors slow down. Of course on a ship that's a problem because of room constraints. Combined with that is that the UH-60 and CH-47 can fold their blades, but they're both manual procedures and they take a lot of time. The question is basically: Is there anything in the wind to install a rotor brake and/or a power blade folding system on those aircraft?

GRIMSLEY: Not in the current models as they exist now, being the CH-47D and the UH-60A model. The MH-47 and MH-60K, being the SOF variants, will have that capability for a rotor brake. I'll have to check, but I don't think there's any plans to go other than a manual folding blade system.

AUTHOR: And the SOF version of course is going to be a limited buy.

GRIMSLEY: Yes. Now the LHX, our next generation that we're proceeding for a milestone 1/2 decision here in April, will include rotor brake in the LHX. Now we're still not looking at a folding system other than a manual folding system at this point on those. Let me switch you over to MAJ Al Broshus, he can give you the specifics on the blade folding. I think I'm right, but I'd like for you to confirm that before you go to press. He can answer your folding blade question.

(MAJ Broshus came on the line)

AUTHOR: I was talking to COL Grimsley about power blade folding and rotor brakes on Army helicopters, specifically with an eye toward employing those aircraft from Navy ships. He told me--of course the current models don't have either--that the special operations versions that are coming out will have rotor brakes, but no power blade fold and that the LHX is going to basically in the same situation: will have a rotor brake, but no powered blade folding system. He referred me to you to get a confirmation on that.

BROSHUS: Standby sir. To the best of my knowledge, we have no power blade fold upgrade in the MH-60.

AUTHOR: OK, well that's what he told me.

BROSHUS: Well then I would confirm that.

AUTHOR: Well I guess that takes care of that. Thank you very much.

APPENDIX F

TELEPHONE INTERVIEW WITH LTC HIGGINS, DOCTRINE,
FORCE DESIGN AND SYSTEMS INTEGRATION
BRANCH (DAMO-FDQ), HEADQUARTERS
DEPARTMENT OF THE ARMY
8 APRIL 1987

AUTHOR: One of the things I'm trying to find out, sir, is if there is any sort of official policy in the Army concerning Army participation in amphibious warfare; either official in print, or de facto. What I've got so far is: There is an FM, but it's seriously out of date. Everything else is coming up blank.

HIGGINS: That was about the only thing that I was going to be able to offer: the outdated field manual. Now there's some potential for movement here in the near future although I don't know what the odds are. In the pentagon there is an office called the Joint Initiatives Assessment Office, JAIO. It's primarily Army-Air Force cooperative ventures, how to get more bang for the buck by figuring out who can do a certain mission more efficiently or cheaper and then not have duplication. For awhile the Navy was a participant, but they dropped out when the joint staff reorganized recently. I mean it's kind of organizing and getting its feet on the ground, but the J-7, which is a new

directorate up in the joint staff, does, eventually will probably do, the thing JAIO is doing now. So, I would talk to those guys in JAIO for one to see if they're aware of anything. And then secondly, the J-7 folks are another outfit to talk to to see if they have any plans. As a matter of fact, they've published probably a pretty good reference, [which] I've seen. I think it's Joint Initiative Assessment, or something of that nature, published by J-5 before J-7 came along. Anyway, it's kind of a list of all the things, cooperative ventures among the services, [and] it includes the Navy in there. Whether there are any amphibious related in there I'm not sure, but that's something you probably want to look at. To summarize what I said: I don't know that there's anything of any substance going on.

AUTHOR: I'm not necessarily talking hardware related [matters] here, although that does enter into it--compatibility and that kind of stuff. There's a charge [that has] been made--it came out in the *Military Review* by a guy by the name of Garland, he used to be the editor of *Infantry* magazine among other things--that basically the Army's turned their back on amphibious warfare and is now totally ignoring it, or virtually totally ignoring it. My research so far indicates that that's true. I've been in contact with TRADOC (ATDOJ), LTC Howard. He's into these

joint things, among others, and he's got some of the same questions. Also the local proponent here in our Department of Joint and Combined Operations is the CAC proponent for amphibious warfare and they've both got similar questions that they've tried to forward up the line in view of some other publications that are in the mill. There's a new joint landing manual for one thing. It's in its second revision now. The Army's supposed to write an appendix to that and they had questions which they forwarded back up, ...I think it was to your office, to try and get some of these things answered so they could write this appendix. They keep getting a "wait, out." I'm running into a similar situation, somewhat more so because I'm obviously unofficial. Is there a policy? What's the Army doing? I keep getting a "we don't know" and/or "it's too hard."

HIGGINS: The straight answer probably is that that's not a priority right now. I don't think there's any conscious effort to ignore it. It's just that there are a lot of things going on and that's probably not number one.

AUTHOR: I can understand it's not *the* highest priority thing on the block, except for maybe the light infantry guys since they're one of the few [units]...that still even have [amphibious warfare]...as a directly stated mission.

HIGGINS: I think the 7th Division is still designated as the Army's "amphibious." Whatever that means.

AUTHOR: Well maybe then I'm going to have to talk directly with them. There are a number of other holes that have cropped up in support of amphibious operations too, not just the war fighters hitting the beach.

HIGGINS: Let me talk to some guys in the office who may know more than I and if I hit on something, I'll give you a call. I think it's just one of the lower priorities at the moment as an answer. I don't know what the statistics are, I think [in] World War II the Army made, what, 75% of the amphibious landings.

AUTHOR: Yes, they made more landings and larger landings than the Marines did. And that was the end of it, pretty much. It took a lot of kicking and screaming on MacArthur's part to get Inchon to happen and a lot of the capabilities that the Army had even in World War II were already inactivated and out of the inventory by Korea.

HIGGINS: I think, of course we're oriented on Europe and now we're thinking a little deeper at least Army--you know, "operational art," "deep battle" and all that stuff.

AUTHOR: I've got a logical thing for Europe too. In fact a guy put it in his thesis about four years ago or so now. I think it was an '82 thesis. That was that there are some times when you might want to do a landing and you might want to use Army forces, if for no other reason than the people who are already in the area, in contact, are Army. To ease your command and control and the link up and all of that, it would make more sense to use Army forces. He used as an example doing kind of a flanking maneuver up in the Baltic. You've held the bad guys off in the northern plain and now it's time to start taking it back to them. You come in and hit their flank from the sea in the Baltic. Since you've already got Army people in contact, it would make sense to use an Army landing force in that case. Additionally, the Army units can be configured heavier than Marine units and they're designed to do protracted land campaigns.

HIGGINS: I guess a realistic problem you have with any division, 7th and others, is they have enough trouble training up to do their basic mission. If you throw in an additional--.

AUTHOR: Well the 7th does a pretty good job, actually, in terms of amphibious training at about the company level, even as high as battalion.

HIGGINS: You can probably pick one division and that's kind of their thing. They do that once a year, so they build some institutional knowledge. If you give that to all of the light divisions, they'd never make it.

AUTHOR: That's another interesting point. You see the Army, I think it's AR 350-1, amphibious training objectives--still a valid instruction--discusses training. It says everybody needs to send key people to school for embarkation, amphibious planning--that kind of stuff--to keep that alive. Then everybody is supposed to do their own home station training. I've got a gut feeling that nobody's even doing that.

HIGGINS: That's probably true.

AUTHOR: Then away training as an additional thing. That if the opportunity comes up and you can afford it; as practicable, participate. Go to a site and use real ships and do that kind of thing. Participating in joint exercises is as directed.

HIGGINS: It's minimal. I think when I was [illegible] used to send guys up to Little Creek--

AUTHOR: The 82d, in fact, is primarily [illegible] most of it so far.

AD-A186 546 THE ARMY IN AMPHIBIOUS WARFARE A CONTEMPORARY APPRAISAL(U) ARMY COMMAND AND GENERAL STAFF COLL FORT LEAVENWORTH KS D A GOEPFERT 05 JUN 87 2/2

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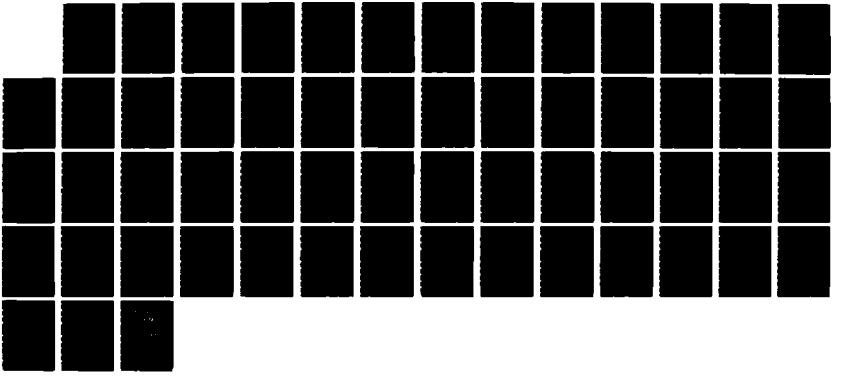

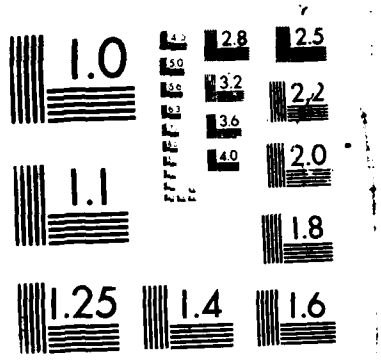

HIGGINS: --and we used to do that just because it was a neat thing to do. But then again, the 82d is probably likely to do contingency type stuff like that.

AUTHOR: That also came out in [Garner's]...article. Usually what happens is [that when] you do one of these joint exercises...the Army coughs up...a battalion of airborne guys to drop in and then link up. That's it.

HIGGINS: Well I hope that as the joint staff grows and tries to coordinate the four services which right now are just totally independent and do what ever they want to do, they might come up with some kind of a joint concept for fighting and give priorities to different type things. You know: Where does amphibious op[eration]s fall in to the Army? At some point, they might provide some direction and get our services organized. Right now they just kind of go in their four separate directions and it may never get better. Right now, if it's to two or more services' mutual benefit, they'll get together and do something. If it's not, then forget it. We're hopeful that the situation changes, but it's too early to tell right now. Everybody's maneuvering, but it's hard to say how it's going to turn out.

APPENDIX G

TELEPHONE INTERVIEW WITH LTC COLLIER,

LOGISTICS BRANCH, LANDING FORCE

TRAINING COMMAND PACIFIC

13 APRIL 1987

AUTHOR: I've got a couple of questions about how much the Army trains at LFTC PAC. The first thing is to try and get a feel for how often Army units show up and what the average size of those units are.

COLLIER: I'd say on the average of two to three times a year we have an Army unit come down. They generally come from Fort Ord, California.

AUTHOR: The 7th ID?

COLLIER: The 7th ID, either active duty or reserve round out type forces associated with the 7th ID. These reserve units are generally based in northern California or Oregon. There's something we have called AOT, Army orientation training. What happens is [that] an entire unit comes down. It could be a battalion size unit, or it could be a company or a couple of companies. Normally it's a battalion size unit. The troops go to what we call Troop Training School,... within Landing Force Training Command

Pacific there are two schools, Troop Training School and Staff Planning School... The battalion staff comes over to the Staff Planning School. They take part in an amphibious planning course where they get some classroom [training] and then they get a problem that usually runs several days in which they have to plan an amphibious operation. In some cases they get to put that to work because then they go back with their troops and...practice an amphibious landing if all goes well. Sometimes the surf conditions aren't right..., so they can't. The idea is that they get married up with their troops after the [classroom] training and they actually go through the landing operation.

AUTHOR: I'm pretty familiar with the set up out there. I was with the Beach Group for about two years and on an LSD out there. I've got an idea about what goes on. The whole school runs what: about a week? Two weeks?

COLLIER: It depends on what they want. We have two week courses and we have one week courses, but mostly two week [courses].

AUTHOR: Ok. Just to see if you know: Does anybody else besides the 7th ever come down? For instance [does the] 9th Infantry out of Fort Lewis ever show up?

COLLIER: No, I don't recall. Just a minute. I'm going to give you another number to call. There's a guy named MAJ Rick Prevost, he's our scheduling officer. He's at 577-2601. He can tell you as far back as you want to go what kind of units have come down. Off hand I can't think of any. We do have other Army training though. We have Mobile Training Teams that go out. We go to Hawaii a couple times a year, or at least once a year--sometimes twice a year. We mostly go to Kaneohe to teach Marines, but we do send one of our Navy Lieutenants to Schofield Barracks. They pay for it and we teach naval gunfire orientation to them. We do send them out on the road to teach naval gunfire orientation to Army reserve units and so on. MAJ Prevost would have more information on exactly how many times we've done that.

AUTHOR: Ballpark figures are good enough actually.

APPENDIX H

TELEPHONE INTERVIEW WITH MR. HAMBRIC, DEPUTY DIRECTOR, DEPARTMENT OF COMBINED ARMS, U.S. ARMY ENGINEER SCHOOL

13 APRIL 1987

AUTHOR: The first thing is if you could give me any sort of position statement from the Corps of Engineers standpoint about how the shore party should be organized and/or who's supposed to be in charge of it.

HAMBRIC: I think you hit exactly on it a few moments ago.... When you start talking about Army amphibious operations, the doctrine is very, very weak.

AUTHOR: I can go you one more, sir. The doctrine is nonexistent. It was cancelled in 1977.

HAMBRIC: Well, that's right. I guess this is probably one of those cases where the Army would have to dip into the FMFMs from our Marine buddies. Now what we do here in terms of instruction--and instruction has to be derived from doctrine--is that we, in fact, call upon the guys down at the Amphib[ious] School in Quantico. Well it's not the Amphib[ious] School, but I guess it's out of their Staff College down there--.

AUTHOR: The Marine Corps Staff College.

HAMBRIC: --and they send a team up from the Amphibious Warfare Center down there. I forget the exact name of it. Once per class we have them come in and show how the Marines do it. Now for a period of two or three weeks thereafter we normally run afoul of our Marine liaison guys down here because they come up and point out exactly what you just said: "Hey you Army guys, you don't have any doctrine on it." For some reason, and don't ask me what it is, there's just other things which take priority over it. Now I guess because of the Air-Land Battle and all that stuff started back in about [19]81-82 time frame--.

AUTHOR: Right. I found that out already.

HAMBRIC: --and that took precedence. They just went in and said, "Ok, we have to find out how we're going to operate on the Air-Land side." Nobody says anything about how we're really going to get there. Everybody, I guess, just assumes that we're going to magically appear in theater somewhere. Right now, there is no Engineer or even combined arms doctrine relating to it. Just as you said. They're rewriting FM 100-16. To me, that is where we ought to have the keystone part of it. First of all, FM 100-5 should at least mention it.

AUTHOR: Well it does, in two places.

HAMBRIC: Well I know, but I'm ta..king about more than it does [talk about amphibious warfare]. It kind of says, "There's something like [amphibious operations]," in other words [a] "we have to get there" type of thing; but nothing implements it. To me the next thing that would occur would be 100-16, *Echelons Above Corps*. Now they're rewriting that thing out at CAC right now. One of our recommendations--...when I was out there, ...almost three years ago--was that somebody needed to start looking at that very closely because, you see, the Engineers are only one player in this. To me, the guys that really need to be involved in it are in fact the transportation guys.

AUTHOR: Right. There was not exactly a running battle, but there was discussion back and forth between the engineers and the transporters [in the] late [19]60s, early 70s. The result was that the engineers kept the ball. That was the call and yet--.

HAMBRIC: [They] didn't do anything about it though.

AUTHOR: Well, (a) they didn't do anything about it; and (b) the organization, [the] Engineer Amphibious Support

Command, has gone away. The TO&E has completely disappeared out of the force structure.

HAMBRIC: You asked what our position would be. Our position right now would be that we, in fact, consider that our mission starts at the high water mark. That's basically the difference between the Marines and the SEABEEs and shore party guys and stuff like that.

AUTHOR: That's no difference. It's the same thing between the Navy and the Marine Corps. The Navy's responsible up to the high water mark and the Marines take over. The shore party is a joint organization having components from both.

HAMBRIC: The work they're doing on the LOTS, and those studies--. I guess what it is is that we sit back--and when I say "we," I wasn't involved in this, I'm just talking "we" from the Army standpoint--. You know what really has to happen is that our Transportation Corps and the Navy has to sit down and decide what, in fact, is the doctrine. How do we get from port of embarkation to debarkation. Once we get there, from the engineer's standpoint, we can operate. Once you get us on shore, we can, in fact, perform our mission.

AUTHOR: That part is actually covered, sir. The thing is that the beach has to be maintained and *that* organization has to stay there and operate the beach for some time, starting with the assault. That part of the doctrine, from the Army side, has disappeared.

HAMBRIC: Ok. I guess what it is though, is that [from] where we're looking at it...once you get us on the ground then basically it becomes what we'll call a general engineering mission. We've still got port construction units, not very many, and we have doctrine. I'm not going to call it doctrine. I'm going to say that we've got the organizations in the force structure, in the reserve and a couple active duty, to handle ports. They can...come in and maintain...--but could actually come in and build if they had to--port facilities. Whether you want to talk in terms of a fixed facility that you have to come in and repair, or whether they had to come in and use the causeways or DeLong pier. In Vietnam when we carted those things over there and used them...until we could get port the facilities--down south and up towards Da Nang and down towards Saigon--we operated under the auspices of the area support groups. Those guys right there, they're the people responsible. Maybe what we're running into is trying to find the onus to pin on somebody--to say, "Ok. You, in fact, are responsible for this doctrine." It's got to be

broken into the two areas and I would almost say the Log[istics] Center would eventually be the guy who probably has to take the hit on developing it. If you think about the actual assault, and these guys come in and make the landing, the primary thing is to get them on the shore and get them off shore and advanced. You know, get them off the beachhead.

AUTHOR: That, sir, is precisely the argument that kept the shore party in the Corps of Engineers. That is, in the initial assault, to really get things going. A lot of that is heavy engineer work--clearing the beach, marking the beach, and setting up/maintaining things. Also since you're a combat support element, [you're] capable of your own defense. That's really necessary in those early stages. It's only after the beachhead is secure and the force is starting to move inland that you can start thinking about setting up a beach support area that's more logistic in nature.

HAMBRIC: To me, see with the assaulting elements--. Let's say you throw "x" number of divisions in. When they hit the ground of course they're going to have their organic engineers plus whatever has been sent with them to augment. Their prime mission at that point is to get the heck across the beach and set up the actual beachhead.

They're going to try to defend out as far as they can and, in fact, I guess they will attempt to keep moving toward the objective wherever it's at. The guys who come in next would be the guys I'm talking about. You might even have Combat Heavy Engineers, or even some Corps Combat Battalions, who come in with the specific mission of doing what we're talking about. To me, they're going to have to be working with the Marines and with the SEABEEs.

AUTHOR: Yeah, they're going to have to.

HAMBRIC: I always look back and say, "God, we preach this thing right here and I'm not sure we shouldn't continue to preach it." You know if we go breach a minefield today, or better yet let's say to put a minefield in, that engineers--there's not enough of them to put a minefield in, so what you do is you go out and beg, bum, borrow extra bodies from the maneuver guys. They come in and augment you, so you've got an NCO basically supervising a platoon, maybe even a company, of maneuver types and they're putting the minefield in. Well I look at that and I'll make the same analogy. Perhaps you come in with a shore party under the control of a Marine or a SEABEE element and they basically are performing the technical guidance because there's no doubt [that] the Army doesn't know what to do. I don't know. God, I could just sit here and talk about it forever.

It's one of these things where we have talked about it. Like I say, when we were writing [FM] 100-16 I tried to put stuff like that in there and was just fought off horrendously by the guys out at the Combined Arms Center. They did not like that whatsoever. In fact, I tried to put it in FC 100-16-1 that we needed to develop doctrine on it. "Well we don't have time to do that. This is not the place." I thought, " well I'm not quit so sure about that." When you consider to make a landing, whether it's a contingency force--it could be a brigade contingency force--or whether it's an army group, they're going to have engineers with them. They're going to have transportation with them. Somebody's got to do it. I'm not so s[ure]. In fact I guess I am sure, it shouldn't be us. We should not be in charge.

AUTHOR: Well the transporters will like to here that. They've been fighting for that for a long time.

HAMBRIC: I'd say it and I would be willing to stand up. I'm probable yelling heresy right now in a sense, but at the same time I'd to go over and talk to the Commandant about it in a flash, because (1) there's going to be an engineer--whether it's a division engineer, corps engineer or the army engineer--out there on board ship somewhere. His prime mission is basically as a task organizer. "I

want this unit here and this unit there." I cannot see him planning much past [that]. In other words: Once we get the assault elements over, now we start worrying about the facilities. It doesn't quite meet what we're talking about. When you talk about an assault landing, or a beachhead--you've got to nail me if I use the wrong terminology, the Army's prime mission with the engineer units--. In other words: I say the engineers are responsible to hit the beach, get on the beach, and get our forces the hell off of the beach. Two things occur there. They're going to attempt to do the mobility tasks that they have to do to get them away from the beach--make room for everybody else coming ashore--and at the same time they're going to start survivability and maybe some countermobility type functions to make sure that we, in fact, can retain control of the beach area itself.

AUTHOR: Believe it or not, that's exactly what the initial elements of the shore party do. They do that and then they also start bringing in the really critical supplies: additional ammunition, POL, and food, probably in about that order. That permits the division engineers to stay [with their supported unit]. Actually they'll come in in a later wave behind the initial assault, initial infantry. That permits the divisional engineers to stay with the infantry and accompany them on out.

HAMBRIC: By the way now, we, in fact, envision in any type mission like that that you will have engineers in the first wave. Maybe not much engineer equipment, but you will probably have something like CEVs. A very valuable piece of equipment on the initial phase is the CEV, because of the demolition gun and its blade. With his boom and stuff; what he can't push or blow out of the way, he might be able to lift out of the way. He's going to be a very valuable thing to get them in and get them off. Hopefully the Navy has taken care of everything up to the high water mark. Once we get there, any obstacles we run into are things that we can basically cope with. We might not be able to get through them too easy, but they relate to us. It's something that we would see on land anywhere. I cannot see engineers ever being responsible for shore party operations in terms of some engineer down there trying to say, "Ok. We're going to fix the beach. We're going to do this and set this over there and that over there. Here's going to be an egress route." I would see one of two things. I would see a shore party guy wearing a Marine uniform, maybe a Navy uniform, telling some engineer, "That's where you need that to go." I don't know how the shore party operates in terms of passing control strictly to the Army. I realize that up until a certain point, that the guy out on ship is still in charge. I don't know where he cuts that loose. I guess that's got to be something

between the admiral in charge of the fleet that's coming in and the ground commander.

AUTHOR: Yeah, that's a call between the amphibious task force commander and the landing force commander. It's basically when the landing force commander feels that his forces ashore are firmly enough entrenched that he can transfer himself ashore and transfer control ashore. He says," I'm ready to take it," and the Navy guy says, "Aye aye, you've got it."

HAMBRIC: That's where I'm coming from right now. If I think about that and say, "Alright, the Marines hit," and I'm saying Marines because I'm a firm believer that the Army's pretty dumb in this. If we went to war tomorrow--.

AUTHOR: That's actually one of the things I'm delving into. There is that mission. It's an Army mission, believe it or not.

HAMBRIC: You think back to the Second World War. The Army was very big in this and we realize that. What's happened is that those forty some years have made us all forget. What happens is that if we were to go to war tomorrow, I would expect to see a task force approach land

and the first guys off of that thing would be a Marine and Navy element who knew those operations.

AUTHOR: Yeah and you'd see the Army as follow-on.

HAMBRIC: In fact, Army augmenting them. In other words: You'd have teams set up, because [when] you think about it, they're going to be spread pretty thin. Have Army--everything from communications to engineers, etc. whatever you need to have--as back up. "Back up" is the wrong word; "augmentation." These guys jump off and land with them and do what they were told. Some Marine Sargent says, "Set that right there," and some Army Captain sets it--right there. When "x" number of meters out here, in fact, came the main landing force, that these guys right here would pass through them very quickly. Now that's where your main engineers would be, the Army engineers, initially division and augmenting corps units. Pass through them very quickly, get the heck out, and secure the beachhead. It's at that time that the people, the Marines and the Navy guys on shore, would really start their mission. That would be "here's where supply, here's the egress." I'm just telling you the way I've read it. Trying to study up on the stuff, writing some of the doctrine we've done, I just can't see us ever in charge.

AUTHOR: Well at least I've found somebody halfway concerned about it. On a kind of change of pace subject: Another thing that traditionally had been with the engineers was the amphibious tractors. That organization also has gone away.

HAMBRIC: Yeah. The last thing I--. I'm trying to think. Well they're not tractors, the old LARCs--.

AUTHOR: Well you've still got those. The transporters [have] got those.

HAMBRIC: That's what I say. They're not engineer. They're the transport weenies.

AUTHOR: I'm talking about the assault element here again.

HAMBRIC: When you're talking amphibious tractor, we don't have any. We've got something called the ACE which supposedly will swim, but I'd hate to ever see it get in the surf. It wouldn't last about three seconds.

AUTHOR: The thing I'm trying to lead up to right now is: Do you know if there is any sort of plan, agreement, what have you, to resurrect an LVT organization, or an agreement

between the Army and the Marine Corps to get assets to do it with?

HAMBRIC: No, not that I know of. I will give you the number of somebody that can provide you better information on that.

AUTHOR: That would be most helpful.

HAMBRIC: That's our DCD guys. The people you'd want to talk to in that--. You'd want to talk to LTC McDonald, or a Mr. Murdock, or a Mr. Mason. The same autovon at 3503, 03, or 5060. The guys I guess who would be good to talk to in that area would be Murdock and he's at 5060. Now those guys can tell you about the TO&Es, TDAs and things like that that we're concerned about, but I know of nothing whatsoever we've got going to try to do anything like that.

AUTHOR: That's another little hole I had to fill in since that organization disappeared.

HAMBRIC: Just about the time I retired from the Army, I did a stint for a few months with one of the "beltway bandits" up here in D.C. They were working on an engineer LVT. I think they were going to take an LVT7 and outfit it as a combat engineer vehicle. I helped them write the

required operational capability, the ROC, document and stuff like that, but I don't know where they took it. I just haven't talked to them for quite awhile.

AUTHOR: I don't think they've got one.

HAMBRIC: No, I'm sure they don't have one yet, but... In fact I don't know how far they even got, but they were talking about being able to carry demo[litions explosives] in and...[putting] a mine plow on the front of it and a few things like that. In other words, strip it down with just enough to put a squad of engineers with demo[litions] kits and tool kits and those things that they would need to knock out any obstacles on the beach. That's where I come from. Dealing with that and then dealing with the Army, my immediate reaction would be that: Yes, you have to have the Marines. I say Marines or SEABEEs, to get in, because we are not equipped to do anything with the surf obstacles or any of the under water stuff whatsoever.

AUTHOR: Well that's our job.

HAMBRIC: Right, and once you get above the high water mark, then we're in a realm where we can operate. Have you talked to our transportation guys on this much?

AUTHOR: I have a number for the Transportation Group. They're in Puerto Rico right now, so I have to call them later in the week.

HAMBRIC: Have you talked to the Transportation School? They're who you really want to talk to. The reason I say that is that they, to me, should be the guys who are worried about this doctrine.

AUTHOR: They have some of it covered in their water transportation book.

HAMBRIC: Maybe a lot of it's done. It's kind of funny [that] you called here. In fact, one of my guys from TRADOC headquarters called me the other day and asked me what we were doing in this area--.

AUTHOR: LTC Howard?

HAMBRIC: Yeah, old Chip called me up. He says, "Hap--."

AUTHOR: Yeah, I've been talking to him quite a bit.

HAMBRIC: He says, "Hap," he says, "tell me the answer to this, 'cause I know it's going to get hot once this article

comes out." So we were talking about it and I told him basically the same thing I've told you, but--.

AUTHOR: Well would you happen to have a number for the transportation school?

HAMBRIC: No, I sure don't.

AUTHOR: Well I've got a number for the 7th Transportation Group and that'll get me started on that one.

HAMBRIC: You can do that, but the truth of the matter is that the guys you really want to talk to are at the school, and I think you need to go to the Log[istics] Center. Those are the guys right there who basically talk to the Transportation School. Somewhere up there. The overall integrator of doctrine in the logistics arena has got to be those guys. They should be the people who should be able to tell you. Some guy up there ought to say, "Yeah, we consider it," or "no we don't consider it." In fact that's probably who you need to talk to next would be the Tactics Department at the Log[istics] Center and then from there go to the Transportation School. It's a shame that two guys have to sit here and talk about something we know we need and nobody has crap on.

AUTHOR: If nothing else, I've done a service of raising a flag.

HAMBRIC: And it has. You know, we forget things here. We think forward deployed so much that they think in terms of Korea, of course the European Theater and stuff like that. A lot of the forces are there and so when they talk about a REFORGER or major exercises where we're going to move troops in, nine times out of ten they go by air. You know as well as I do that if we ever get down to down and out war with the bad guys over there, that crap is going to go by ship. At least after the first few days anyway because by that time they'll have blown up all our POMCUS stocks and we'll have to start shipping it over. Interesting, but sad subject here. I hope you raise a lot of hell with them, because it is something--.

AUTHOR: Well that's if anybody reads it, sir.

HAMBRIC: I know for a fact that you evidently have made a good point with Chip Howard. I was at a meeting with him not too long ago and he walked over and asked me the same thing. He asked me from another thing. You see I'm the head of the delegation to NATO on engineer matters and he asked me if we ever talked about it over there. I said, "No," and it's true. We need to.

AUTHOR: All right, sir, you've been very, very helpful.

HAMBRIC: I tell you what. Now if there's anything else that you think I can help you with, give me a yell because one very good thing that I'm good at over here is raising flags. I certainly wish you success in bringing pain to bear on the guys who need to have it right now. We certainly need to have it.

AUTHOR: We'll see what happens.

HAMBRIC: The people you need to get to in a hurry are the guys out there rewriting FM 100-16, because they're rewriting it right now. When you're talking echelons above corps, that's exactly what you're talking about right now. If you had something they could put in the book, they would. I can tell you that. If you go up and talk to Brink Miller, COL Brink Miller who's the chief of doctrine in DTAC, and just tell him that we were talking, you'd be surprised at what he might be able to turn you onto. You might find some Navy writing get into Army doctrine a lot easier than you think.

AUTHOR: All right. It's been nice talking to you.

APPENDIX I

INTERVIEW WITH LTC BECK, AMPHIBIOUS WARFARE PROPONENT FOR THE U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE

15 APRIL 1987

AUTHOR: You've been helping me with this research all along and I've still got a few holes that you might help fill in. First of all, I understand that FM 31-11 is about to be reissued. Is that true?

BECK: 31-11 was staffed through U.S. Navy Tactical Activities, the POC there is a Mr. Ben Fromm. In talking to him yesterday, I found out that FM 31-11, which is NWP 22(B) change 4, was released for distribution on 1 November [19]86, so they should be coming out here sometime in the next few months.

AUTHOR: Great. I've been working off of the draft of LFM 02. Could you tell me what its present status is?

BECK: The Army made comment to the first draft back in September of [19]86 and there is a second working draft that is out at this particular time; however, a copy of that has not filtered down to this headquarters for review. When it does, of course we'll be tasked for a

review. I have asked Col Clancy, from the Marine Corps Department that's here, to see if he could informally get me a copy so at least I would have a "heads up" of any changes from the draft one to draft two.

AUTHOR: Lastly, you're aware that the Army no longer has any LVTs or any units to run them. Is there anything set up with the Marine Corps and the Army to get any if they're needed?

BECK: To the best of my knowledge, there's no formal memorandum of agreement between the Marine Corps and the Army for the use of LVTs. One of the significant things that you've already pointed out in some of your research is the swimming capability of the [M]113 and the M2 Bradleys. The Bradley, specifically, right now is under fire for its swimming capability. The only reserves that I'm aware of would be in the 4th Division of the Marine Corps which is the reserve division, however, by the time an Army force would be committed, more than likely all of those LVTs would already be in utilization by the three MAFs that are in existence for deployment/employment throughout the world.

AUTHOR: Thank you very much.

APPENDIX J

TELEPHONE INTERVIEW WITH MR. WEISFLOG, CONCEPTS AND STUDIES DIVISION, U.S. ARMY TRANSPORTATION SCHOOL

28 APRIL 1987

AUTHOR: One of the things I'm trying to track down is amphibious transportation, in particularly LVTs. Now I know that they used to belong to the Engineers and the loan agreement with the Marine Corps ran out in [19]63 at which time they were turned back over [to the Marines] and the whole activity sort of went away. What I'm trying to find out right now are two things. First of all, is there any sort of interservice agreement with the Marine Corps so that the Army could get some of those vehicles should they need them for some contingency?

WEISFLOG: Not that I'm aware of. The mission you speak to, to provide that, is not technically a Transportation Corps mission.

AUTHOR: Yes sir, I know. I've talked to the Engineer School and they don't want anything to do with it.

WEISFLOG: Yeah they don't want anything to do with it either. You know, the answer I'm sure is: no. It's

interesting that you should call. Although this was about six months ago when this happened, LTG Fuson--retired LTG Transportation Corps type, working on a special project for the GAO--had a session with three or four of us and then I followed up, because of my background in this type of business, where he and I talked for a couple of hours. His main thrust was: Does the Army really have the capability to support an amphibious operation? We went through a lot of the background [of] why the force structure fell apart, what happened to some of the equipment, and how would we do things today if we had to do it on a quick basis.

AUTHOR: That's precisely what I'm tracking down.

WEISFLOG: All I can say to that is: I don't think we're very well prepared to put Marines in an assault phase on the beach in the Army--and Army landing force. The landing force could be anybody for all intents and purposes--Army, Marine Corps, whatever. I suppose the waterborne forces could be almost anybody except obviously the Navy has got some unique, peculiar and, hopefully with LCAC, some sophisticated equipment to get ashore.

AUTHOR: Well if you're talking a shore-to-shore operation, that's typically a uni-service thing.

WEISFLOG: Our doctrine has not really been updated; although our basic doctrine is still the same as everybody's. It's in a joint manual which I guess the Marine Corps has the overall watch, or the proponency for.

AUTHOR: Yes, the Marine Corps--the Department of the Navy and the Marine Corps in particular--does have the lead on developing doctrine.

WEISFLOG: As you probably know, the Army put out a couple of its own special field manuals in the [19]60s on amphibious operations.

AUTHOR: Yes sir, and I know what happened to them too.

WEISFLOG: Yes, and basically because of the combat nature involved that was a mission assigned to the Engineers; although admittedly, just as in any amphibious operation, there is a lot of ad hoc-ing on a temporary basis of different types of support organizations--be they engineer, or signal, or transportation, military police, you know, whatever it might be. They kind of had the lead in doing all of those types of things. For a bunch of different reasons not tied into an actual assault, amphibious assault, we in the Army have taken great strides modernize our fleet of watercraft. I hate to think of aluminum

hulled, lightly skinned, thin skinned amphibians of our LACV-30 type moving cargoes ashore in an [amphibious] operation--particularly in a combat type of an assault--and they're awfully poor personnel carriers. So--.

AUTHOR: Yeah, they don't have any gunwales on them--.

WEISFLOG: They're all just flush deck. You get exposed and it's a lot of salt water and all that kind of good stuff. They're just--. Let's face it, they were never designed to be a personnel carrier.

AUTHOR: Yeah, they're container/vehicle haulers.

WEISFLOG: .... I really think across the board *that* Army mission has fallen through the cracks in terms of support, whether it be a question of resources or whatever. As you talked before: Doctrine has gone by the board. Our equipment hasn't kept up with what's required. Most importantly, I think our training program's pretty much fallen apart. I don't think our units have been "plussed up" or trained in any of those types of things, except maybe the 7th Division. You may have some insight on that [from] talking with some people out at CAC. 7th Division has done a little bit of work, but I think it's mostly been

perhaps a raid or that type of operation, not a real assault.

AUTHOR: Up until about the last year or so, they've been pretty good about sending company, even as large as battalion, size...[units] down to Coronado to do basic amphibious training. My understanding is that they were told to knock that stuff off because they don't have a specific amphibious mission. And they don't.

WEISFLOG: Right, and they've been reconverted to a "light" division and the concept of employment of the light division is that they don't fight their way ashore. They try to fight their way backwards and delay as best they can, but they don't fight forward.

AUTHOR: I took a peek at the watercraft master plan. One of the pages talks about the mission of the Army and specifically states logistic support. They've got nothing to do with assault.

WEISFLOG: That's the general interpretation. That's correct; however, you know--.

AUTHOR: Which doesn't jive with Pub 2 again.

WEISFLOG: That's correct, absolutely correct. Now we do have LCM-8s and LCUs in the inventory and they're the same vessels as the Navy's got.

AUTHOR: They are. I just got off the phone with some people in the "3" shop of the 7th Transportation Group and they said that they've started to mount 50[caliber machine gun]s on the "8 boats" again--finally.

WEISFLOG: Yes. Well you can debate that pro or con. At any rate, at one time--and I have to go back I think to about the late [19]50s, maybe up to about 1961/1962--we used to have something in the Army called a boat battalion. It was an Army organization that was entitled to wear the "green tabs", signifying that it was a category 1 unit like our infantry.... They were organized to provide augment[ation] to the Navy in amphibious operations and they trained [for it]. It was called the 159th Boat Battalion and at that time they had LCM-6 companies, LCM-8 companies and LCU companies.

AUTHOR: I've been tracking the evolution--or devolution as the case may be--of the Engineer Special Brigades. That's where those guys originated. Between World War II and Korea, they transitioned the boat companies over to the Transportation Corps.

WEISFLOG: Right, and they still maintained the affiliation with the ESC, or EASB--Amphibious Support Brigade.

AUTHOR: They were still part of that organization, but they were specifically Transportation Corps. After Korea the remaining ESB went away and then came back again in about [19]65 I think it was, until around [19]70-71. It's gone again and the TO&E isn't even there anymore. I've gone through the TO&E header list.

WEISFLOG: Not even one in the header list?

AUTHOR: There's nothing in the header list for any sort of engineer organization. What would have to happen right now is [that] you'd have to take a Terminal Battalion and I guess a Terminal Brigade; use it for a nucleus, a headquarters--.

WEISFLOG: As a matter of technicality; although there is a header TO&E for a Terminal Brigade, we don't have any such units in being. The highest level organization we have is a Terminal Group that's headed up by an O-6 and we only have one of those out here at Fort Eustis. You talked to some of their people earlier.

AUTHOR: Then you'd have to take a Terminal Group, since they're set up to do it, then augment them with engineers, MPs and everybody else, rather than taking an Engineer headquarters and doing it.

WEISFLOG: Absolutely right. There've been some studies written along that line a goodly number of years ago, but I think the nucleus of what you need for command and control is found within the Transportation Group--the staff there with some of the communications. But as you say, they'd have to be reinforced with a goodly number of elements to include some engineer support [be]cause they don't have any organic engineer support in the terminal group.

AUTHOR: That was indeed a protracted discussion between the Corps of Engineers and the Transportation Corps in the [19]60s. It kind of died about [19]70 with no action being taken. I guess at one point Transportation Corps had made a move to have the whole shore party swung over to a transportation type command, [a] branch specific command.

WEISFLOG: I was around the school...as an instructor when that was going on in the [19]60s. I'm not sure there was ever really an overt action on the Transportation Corps' part to do that. Maybe it was leading to that, then Vietnam came along.

AUTHOR: Doing research here at the Combat Arms Library: There are some older papers from around [19]70-71 that discuss that. There were studies done on both sides of the house that were forwarded up the line. The result of those was that no action was taken to change anything. What has happened is that in the interim, the organizations that used to exist have just sort of gone away. I've got a pretty good handle on that one.

WEISFLOG: Well, I have to chuckle every time the situation comes up and I'm the TRADOC author of the *Watercraft Requirements Master Plan.* I was given the honor of briefing that plan. We went down the pike to see GEN Kingston when *RDJTF was in being, just before they* transitioned into CENTCOM. His Chief of Staff was a Marine Corps Major General as I recall. Kingston was only three stars at that particular time. He received our briefing and said something about all the watercraft that we had. He said, "Where were you three years ago," meaning 1979 when he was really hard pressed to go somewhere with something. I said, "Well general we still don't have the assets that we're talking about. All we've produced at this point in time is a whole bunch of paper." I said, "At least all the administrative aspects are finished. All we need now is the blessing, the 'go ahead' and the dollars to go ahead and implement the program. At least we're at a

point where we're ready to implement." He kind of turned around and he said--. There was a Navy type on his staff too. I don't remember his name except that was the first time I'd ever seen an actual Commodore other than around the yacht club, but it was a Navy guy wearing one star on his collar. He turned to him and said, "How is the Navy doing on their programs?" That developed into a little bit of talk about LCAC. Then he turned around to the two star, the Marine Corps general, and he says, "In the big one in '44 you guys were fooling around out in the islands. You weren't even there, that was an all Army show. You remember that one don't you?" I had to chuckle at Kingston jiving his staff a little bit. He was doing it very good naturedly with a great big smile on his face. He said, "I'm not sure we've got that capability in the Army today to do those kinds of things we did in World War II." Here it is ten years later, at least seven years later, and we're still in the same position. I think things that have happened around the world in the last twenty years, or at least since the end of World War II, that say, "Hey, you'd better have some hip pocket capability along the line," and obviously we don't have it. We don't have it in the Army.

AUTHOR: That is so true and that's what I'm finding out. That's why I'm calling folks to confirm it, because it's not written down anywhere.

WEISFLOG: As we said, JCS Pub 2 lays the mission on us. I don't think that there's any doubt in anybody's mind that we just don't have the capability to do it.

AUTHOR: I'll tell you: The captain I was talking to at the Transportation Group was surprised that it was in there, but that doesn't surprise me either.

WEISFLOG: Well I'm not sure what exposure those guys have to JCS Pub 2, whether it's in their job or even in the staff work that they do, or the training they get through the school here. I'll go one point further. When I was an instructor here, on the staff, we taught I don't remember how many hours on amphibious operations. We had some classes on amphibious operations and particularly the embarkation aspect of it [in]...our basic officers' courses, where the lieutenants coming through the basic officer courses learned a little bit about combat loading. Some of those peculiarities that go into that kind of business. As you got on into the advanced course, there were some more...hours taught on amphibious operations planning, shipping allocation and things like that. We went into that from a staff point of view. We ran our courses over to Little Creek to go through the "amphibious evaluator". We tried our damnedest to schedule our courses into some of the different demonstrations that were run

frequently during that period of time. They always had a lot of things going on at Little Creek during the [19]61, 62, 63, 64 era. Sometimes we'd go down to Dam Neck and see some of the things happen down there. We were tapped to provide, on a loan basis, some instructors from my branch to go over and help Little Creek to teach because during [19]61-62 they funnelled a whole bunch of Army units--.

AUTHOR: That would have been [19]62. I found a little blurb in the Army Navy Journal about that. President Kennedy decreed that we should do more of it, so they pumped 2,000 guys every two weeks--.

WEISFLOG: Yeah, a lot of Army people went through those courses over at Little Creek and we were asked to provide them with some instructors. I myself am a graduate of a couple of [courses at] the Marine Corps Amphibious School over at Little Creek, so I'm very familiar with everything that happened in those areas. I'm on pretty firm footing by saying I know an awful lot about it. Having instructed in it, [I] had an awful lot of expose to them. I say based on that: We don't have much capability today. With the provision of a little bit of specialized equipment and some "plus up" training time, I think that we probably could do something. We're not really starting from scratch. One of the other things I'd like to call to your attention that's

happened in the last three or four years is at least the Army and the Navy have gotten very "joint" in consideration of equipment, organizations, and procedures and doctrine in support of LOTS and ALS. Does that acronym ring a bell with you?

AUTHOR: No.

WEISFLOG: I think I'm correct by saying ALS, Amphibious Logistic System. It's the work that's being done to put the FOE, the follow on echelon, on the beach using different causeway systems and marrying up with roll-on roll-off ships--.

AUTHOR: The only term I've heard, and I was with the Naval Beach Group for a couple of years also. The only terms I've heard are LOTS and JLOTS.

WEISFLOG: LOT and JOTS? Ok. Out of JLOTS has come the recognition that we need to--. There was a memorandum of agreement initially [signed] by ADM Averette, he retired about three years ago, and at the time BGEN Ross from Transportation Corps, he's now MGEN Ross, but they got a joint memorandum together and saying we've got to get joint on our approach to solving the problems in ALS and LOTS and so forth. As a result of that, they've gone so far as to

prepare a draft field manual that's called FM 55-64--its got a Navy title NWP 81--titled *Joint Strategic Sealift Offshore Discharge Operations*. It just came across my desk a couple of weeks ago and I haven't had a chance to get into it in any kind of depth.

AUTHOR: I may have a copy of that down in the CAC proponent's office.

WEISFLOG: Maybe. It's a two volume type of thing with a beige cover on it. It's got a date of 15 January 1987. All I can say is that the whole thrust in the last four of five years between the Army and the Navy in this business is to get "joint"--not necessarily in amphibious operations, but at least in terms of recognizing the different concepts of operations the Navy has vis-a-vis the Army in conducting those type of operations, i.e., the Navy operates afloat, the Army operates on the beach. The Navy kind of ad hocs their different organizations for whatever the size of the mission and the peculiarities might be. The Army has what I would call dedicated units that are in the TO&E base and we don't ad hoc those around too much. They can be fragmented, but we don't do a whole lot of that. We have stereotyped units: boat companies, cargo handling companies and the like. Trying to recognize those differences and philosophies of how to support and where to

support from, I guess we've really tried to tackle the "joint" thing. The guy that kind of pushed this really was GEN Wakefield, Sam Wakefield, when he was the J4 of READCOM. He's now the G4, the DCSLOG, of FORSCOM at McPhearson. People have picked up the ball that he started to roll. I think we're getting more "joint" in a lot of different things, not just equipment acquisitions, but in terms of philosophy, doctrine, trying to solve problems on a common basis. Most importantly, we're talking to one another.

AUTHOR: Alright sir. I think you've been most helpful.

WEISFLOG: Anything else comes up, call me back. I wish I could be more positive in our ability to come in and help, but I just don't really think the Army can cut it.

AUTHOR: This is strictly an academic research work. "This is what I've found."

WEISFLOG: I feel very confident and maybe I'm playing the parochial business a little too much--. I feel pretty confident that with the things that the 7th Group has done and the other things that people around the Transportation Corps have been involved in for the last couple of years, that from that part of it, i.e., the combat service support

aspect, we might be able to do a pretty credible job on short notice. The real key though is when you talk about marrying up artillery and air/naval gunfire, the combat force being put ashore with different boat groups. I'm not sure our tactical forces would enjoy the same ability to rather rapidly transition. I think there's more training requirement there than perhaps we would have.

AUTHOR: Thank you very much sir. If I need anything else, I'll get back to you.

APPENDIX K

TELEPHONE INTERVIEW WITH MR. MURDOCK,

ORGANIZATION, PERSONNEL, SYSTEMS

DIVISION, U.S. ARMY ENGINEER

SCHOOL

28 APRIL 1987

AUTHOR: As I'm sure you recall, there used to be an engineer organization called an Amphibious Support Command which doesn't exist anymore. In fact, I went through the December TO&E header list and there's no such animal even in the TO&E list anymore. Is there anything stashed anywhere--.

MURDOCK: I have the historical documents in my cabinet. If not, then they're in the historical records.

AUTHOR: Ok. The actual question is: Is there any plan on the shelf to resurrect that if need be?

MURDOCK: Not to my knowledge. There is none.

AUTHOR: Ok. I guess the same would go with the Amphibian Battalions then.

MURDOCK: Right.

AUTHOR: Ok. That probably answers all the questions I had remaining, sir, because I've talked to a whole bunch of other folks.

MURDOCK: Ok. Like I said, we do have historical documents which we can go back and pull out if you need to see those.

AUTHOR: No, I don't actually need to see them. I just wanted to know if the organization could be resurrected.

MURDOCK: Oh certainly. It could be. We just have to dust it off, load it back into the data base, and go with it if that was necessary.

AUTHOR: Good. That's most helpful. Thank you very much sir.

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